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BUSINESS WEEK

A McGRAW-HILL PUBLICATION

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FIFTY CENTS

APRIL 5, 1958

O'Connor: It takes the right products and timing to climb to the top in the oil supply business. (Management)

E B POWER CE CO.

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ANN ARBOR MICH C. C.



How ounces of rubber can harness herds of horses

Keeping the herds of horses harnessed in today's aircraft engines "on the go" often depends upon a few ounces of rubber. In the form of "O"-rings, frequently no bigger than a pencil eraser, this rubber serves as a packing on actuating cylinders, selector valves and other vital parts where positive sealing is essential.

It used to be that "O"-ring failures were all too frequent. Ordinary rubber could not withstand the various hydraulic fluids, the -40°F. to 160°F. temperatures, the flexing, the stretching, the elongation. But the picture changed when Goodyear introduced Chemigum—first of the truly oil-resistant rubbers.

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Goodyear, Chemical Division Dept. P-9415, Akron 16, Ohio



GOOD YEAR

CHEMICAL DIVISION

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Chemignia, Pholles, Pholic, Phovic ~T. M.'s The Goodyear Tire & Rubber Company, Akron, Ohio

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FIGURES OF THE WEEK

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	1958				150
40	1730				140
30 ~	•				130
20	~				120
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1953 1954 1955 1956 1957	M .A M	Year	A S Month	O N Week	§ Late
USINESS WEEK INDEX (chart)	Average 91.6	Ago 146.7	Ago 128.4	Ago †124.6	*125
				,,,,,,,	
RODUCTION Steel inget (thous, of tons)	1,281	2,319	1,425	11,366	1,29
Automobiles and trucks	62,880	164,150	117,471	†104,928	118,6
ingineering const. awards (Eng. News-Rec. 4-wk daily av. in thous.)	\$17,083	\$59,526	\$52,913	\$58,237	\$67,9
rude oil and condensate (daily av., thous. of bbls.)	4,238 4,751	7,786	11,803 6,841	11,756 6,263	11,6
lituminous coal (daily av., thous. of tons)	1,745	1,726	1,132	11,273	1,2
aperboard (tons)	167,269	274,516	264,351	273,800	268,6
ADE					
arloadings: mfrs., miscellaneous and I.c.I. (daily av., thous. of cars)	82	69	52	55	
arloadings: all others (daily av., thous, of cars)	53 90	46 113	37 82	35 106	1
Business failures (Dun & Bradstreet, number)	22	290	331	357	3
ICES					
pot commodities, daily index (Moody's, Dec. 31, 1931 = 100)	311.9	409.1	397.3	399.2	396
ndustrial raw materials, daily index (BLS, 1947-49 = 100)	††73.2 ††75.4	93.8 81.3	83.2 89.0	82.6 89.7	8
Foodstuffs, daily index (BLS, 1947-49 = 100)	17.5¢	17.9€	17.4¢	17.3¢	17.
inished steel, index (BLS, 1947-49 = 100)	††76.4	174.0	†181.7	†181.6	18
Crap steel composite (Iron Age, ton)	\$20.27	\$44.17	\$37.67	\$35.00	\$34.
opper (electrolytic, delivered price, E & MJ, lb.)	14.045¢	31.730¢	24.690¢	24.570¢	24.88
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	\$1.97 **30.56¢	\$2.32 33.87¢	\$2.21 34.52¢	\$2.30 34.56¢	\$2 34.5
Noel tops (Boston, Ib.)	\$1.51	\$2.10	\$1.80	\$1.70	\$1.
VANCE					
00 stocks composite, price index (S&P's, 1941-43 = 10)	17.08	44.28	41.09	42.37	42.
Medium grade corporate bond yield (Baa issues, Moody's)	3.05% 34-1%	4.42% 3%%	4.65%	4.69%	4.69 21/8-21/4
NKING (Millions of Dollars)					
Demand deposits adjusted, reporting member banks	††45,820	55,472	54,943	55.243	54,5
Total loans and investments, reporting member banks	††71,916	85,604	87,361	90,474	89,8
Commercial and agricultural loans, reporting member banks	119,299	31,433	30,448	31,041	31,0
J. S. gov't guaranteed obligations held, reporting member banks Total federal reserve credit outstanding	††49,879 23,888	25,164 24,930	26,856 24,527	28,255 24,638	28,1 24,7
CANTULY ELCHIPES OF THE MERY		1946	Year	Month	Late
ONTHLY FIGURES OF THE WEEK		Average	Ago	Ago	Mon
rivate expenditures for new construction (in millions)		\$803	\$2,405	\$2,251	\$2,4
Consumer credit outstanding (in millions)		\$197 \$6,704	\$890 \$40,738	\$854 \$43,966	\$9 \$43,0
nstallment credit outstanding (in millions)February		\$3,174	\$31,488	\$33,737	\$33,3
Manufacturers' inventories (seasonally adjusted, in billions)February Wholesalers' inventories (seasonally adjusted, in billions)February		\$21.3 \$5.5	\$52.9 \$12.8	\$52.9 \$12.6	\$5: \$1:

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^{*} Preliminary, week ended March 29, 1958.

† Estimate.

* Ten designated markets, middling } in.

Date for 'Latest Week' on each series on request.

Insufficient trading to establish a price.

How Good Earnings for the Telephone Company Benefit the Telephone User

Good earnings provide both the incentive and the means for better telephone service and greater value.

But if earnings are low, and all energies and judgments must be directed to meet the pressing needs of the moment, it becomes impossible to do the best for the long run.

For a practical illustration, let's take a telephone engineer who is figuring out what size telephone cable should be installed to serve a growing neighborhood.

He knows it must serve 200 homes right away. He's reasonably sure also that in another couple of years perhaps 200 more homes will want service. Putting in a cable today that is big enough to serve all 400 homes will cost more at the start.

However, putting in a smaller cable today that will serve only 200, and another of equal size two years later, will cost a lot more in the end.

What will the engineer do?

If the company is pinched for money, he'll have to put in the smaller cable, even though this will



be more expensive in the long run.

But if the company is in good financial shape-

If it can readily get the capital required for the big cable—

And if the general level of earnings justifies absorbing the temporarily higher cost of the larger cable until the time when its full capacity is utilized—

Then the engineer will decide to go ahead with the larger cable. Over the years this will save money for both the company and telephone users, and produce the best service. Telephone people are called on to make decisions like this, day in and day out. In all these decisions good earnings are essential to assure the greatest economy and progress.

There is nothing to justify the philosophy that keeping telephone earnings low is the way to insure low rates.

Such a policy, by limiting progress and long-range economies, leads inevitably to poorer service at a higher price than the customer would otherwise have to pay.

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...with electric resetting in 1/10th of a second

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READERS REPORT

Gas Air Conditioning

Dear Sir:

I was very much interested in the article on the electric heat pump which appeared under Personal Business [BW—Feb.15'58,p145]. As you may know, the engineering principles of the heat pump were developed many years ago. . . . Only recently, however, has the electric industry thrown its full resources behind the development of a heat pump in order to provide a means for invading the central heating equipment market and to flatten out its load curve.

While the electric industry's load curve has been exaggerated as the result of the growing demand for summer air conditioning, the gas industry is faced with an opposite situation. Today the gas industry enjoys a large share of the heating market, and its pipelines bulge during the winter months. During the summer, however, a large percentage of this capacity lies idle, particularly distribution systems.

In order to fill its "summer valley," the gas industry is now aggressively promoting the sale of gas air conditioning equipment to serve homes, business, and industry. Among the several types of equipment available today are units which both heat and cool by the absorption process. I believe you would find that gas air conditioning equipment is equally as exciting and interesting . . . as the electric heat pump. Significantly, it overcomes the two key drawbacks of the electric equipment referred to in your article as to higher installation and operation costs. . .

C. H. ZACHRY

PRESIDENT SOUTHERN UNION GAS CO. DALLAS, TEX.

Good Comedy

Dear Sir:

Your article about Detroit's spring thaw [BW-Mar.1'58,p23] makes a real good comedy. Those automobile boys love to kid each other more than anyone we know. The only part of this comedy that isn't funny is that the automobile business has such a profound effect on the whole economy. . . .

At least in one respect we are all in the same boat. We have all been spoiled for so long by good business that we now feel that our good fortune is an inalienable right earned through profound business

٠



This picture shows why...

Anaconda's Duralox Cable cuts installation costs up to 50%

Duralox needs no conduit—
saves time, money, manpower.

Duralox* is already enclosed in durable, yet flexible, metal armor. Thus, it can be installed *without* conduit—in long runs over and around obstructions, in trays, indoors or out.

THE FLEXIBILITY of Duralox Cable enables neat, efficient installation and facilitates equipment and terminal connections.

PITTING NEATLY AROUND BEAMS, Anaconda Duralox Cable installed in large industrial plant. Cable is 600 volt, 500 Mcm, varnished-cloth insulation.

Duralox is easily moved and is 100% salvageable — makes your entire plant operation more flexible.

And Duralox's lower reactance in higher voltages — because of the close spacing of conductors — results in reduced voltage drop and more efficient power distribution. Available in all popular sizes and voltages. Whether you're wiring a new plant or rewiring an old one—see the Man from Anaconda. Duralox is just one of the many types of Anaconda wire and cable that can help you increase plant flexibility . . . cut operating costs . . . get new power fast. Anaconda Wire & Cable Company, 25 Broadway, New York 4, N. Y.

BULLETIN DM5606 on Anaconda Duralox Cable is yours for the asking. Write: Anaconda Wire & Cable Company, 25 Broadway, New York 4, N. Y.





SEE THE MAN FROM

ANACONDA®

FOR DURALOX POWER CABLE



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BETTER SWITCH TO HAMMERMILL LEDGER

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dealing of the highest and most talented order. Let's quit kidding; we are just a bunch of ordinary business men with swelled heads; we have been living so "high off the hog" that we just got to thinking that the other end wasn't there anymore.

All we have to do is quit kidding ourselves. This mild drop off in business is proof enough that we aren't kidding anyone but ourselves and this especially includes the Detroit boys. Let's get back to some of the old standards. One that isn't hard to get back to is: "How good a value can we give a customer," not what will he stand for, but what can we do and still make a profit. You will be surprised at what you can do if you try....

CHARLES PHILLIAS WEST HANOVER, MASS.

Too Much Chrome

Dear Sir:

Mr. Harger [Readers Report—BW —Feb.1'58,p16] is right.

Saying something does not make it so.

The lines of the VW are no more offensive to the eye than the excessive chrome splashed on Detroit's finest. If Detroit's styling is so good, why all the chrome? Good lines don't need it; witness the Lincoln Continental.

CHARLES P. HABER LOS ANGELES, CALIF.

Not Enough

Dear Sir:

The article on Marketing [BW—Feb.1'58,p46] is about me—a consumer. I feel that I must fill in some shading—and a few major features—for the portrait to seem more life-like.

I have to agree with much of what was discussed. We have "war crop" babies as well as durables up to here. However a major reason for our non-purchasing was not mentioned. The manufacturer has not shown me that he has improved the goods enough to warrant an exchange of what I have for it...

MRS. GEORGE W. REED PERRYSBURG, OHIO

Say That Again

Dear Sir:

I fail to understand the meaning of your statement "... steel mills were operating at an average of 84.5% of capacity, lowest rate in 10 years, except for 1949 and 1954." Are They Ready to Bound Back? [BW—Feb.1'58,p110]. Cer-



Out of sight...out of mind ... but never out of service!



turning point of modern industry Unfailing performance day in, day out! That's the task of a deep-well pump whose labor is to lift tons of life-giving water from deep beneath the ground. And because they work in remote and arid country, service needs must be few and far between. That's why leading deep-well pump manufacturers depend on New Departure ball bearings.

For deep-well pump bearings must resist heavy thrust loads while keeping vital parts operating smoothly and dependably in order that livestock and crops receive adequate water supply without fail.

Call New Departure for help with a bearing problem which calls for complete dependability with minimum service.



NEW DEPARTURE . DIVISION OF GENERAL MOTORS, BRISTOL. CONN.



STEEL PRODUCTS...and

A few short years ago, visionaries were saying that "someday" airports would include hotels... and really efficient facilities for handling planes, passengers and the ground-bound vehicles which must serve both.

Yet "today" is now a reality in many American cities—thanks to skilled architects, designers, contractors and builders who combine ingenuity with practicality in designing airports, as well as schools, hospitals and many other types of buildings. It is this practicality that leads so many of them to specify CF&I Steel Products.

As each plane lands , for instance, it's usually just a few inches away from a very important CF&I Product. For Clinton Welded Wire Road Fabric is used in the runway so that it can withstand the terrific shock of

landing planes as well as the abuse of weather and time. What's more, CF&I Products helped build the runway. There were CF&I Cutting Edges on the giant bulldozers that carved out the runway site... Wickwire Rope on the draglines helped remove the surplus earth... and CF&I Industrial Screens were used to prepare the sand and gravel that went into the concrete.

In the plane itself , Wickwire Aircraft Control Cable operates wing and tail surfaces of the plane—just as Wickwire Springs and CFal Industrial Wire Cloth play important parts elsewhere in the plane.

After the passengers deplane to an area protected by CFal Redlock Fence , the plane may be moved to a hanger . There other CFal Products come into play.



Some of the mechanic's tools, for example, are made from special CFal-Wickwire Wire... and Wickwire Wire Rope Slings serve many purposes.

The passenger terminal building Θ , is built of concrete—concrete that's reinforced with CFal's Clinton Welded Wire Building Fabric.

This type of construction is also widely used in the airport hotel . And you'll find another CF&I Product

playing an indispensable part here, too. It's dependable Wickwire Elevator Cable.

Even if you don't build airports...or operate them ... you can still use many of the long line of CF&I Products to excellent advantage right in your own operations. Contact your nearby CF&I Representative for complete details.

THE COLORADO FUEL AND IRON CORPORATION

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Cleans Vast-Area Floors
"By the Mile"

Monoxide Eliminator, Powder Dispenser, and Rinse Assembly are accessories



Completely mechanizes scrubbing

- Coverage up to 24,400 sq. ft. per hour!
- Mounts a SELF-STARTING gasoline engine

This all-in-one cleaning unit, Finnell's 218G Gasoline-Powered Combination Scrubber-Vac, is indeed the answer to today's need for increasing output per man-hour on vast-area scrubbing. The 218G applies the cleanser, scrubs, flushrinses if required, and picks up (damp-dries the floor) – all in one operation! Independence from power lines permits the machine to go wherever the operator guides it... working in and out of production areas with ease...scrubbing continuously.

Maintenance men appreciate the laborsaving features of this unit. The gasoline engine starts quickly and easily by pressing the starter button. And there are no switches to set for fast or slow—slight pressure of the hand on clutch lever adjusts speed to desired rate (up to 136 fpm). Two 18-inch brushes give a 36-inch scrubbing surface. One engine (2 cyl., 4 cycle, up to 10.1 hp maximum, and air-cooled) operates all working parts. The powerful vac performs quietly.

Whatever the area of your floors, find out what you would save with a Combination Scrubber-Vac. Finnell makes self-powered models, gasoline or propane operated, in 18, 30, and 36-inch sizes, and also electric models in sizes to meet specific needs. It's good to know too that a Finnell Floor Specialist and Engineer is nearby to help train your maintenance operators in the proper use of Finnell Equipment and to make periodic check-ups. For demonstration, consultation, or literature, phone or write nearest Finnell Branch or Finnell System, Inc., 3804 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

FINNELL SYSTEM, INC.

Originators of FINNELL PRINCIPAL

Power Scrubbing and Polishing Machines

CITIES

tainly, in one 10-year span, production would be lowest during only one year. Please explain.

A. L. ALBIN

SAN DIEGO, CALIF.

• The use of the word "lowest" was misleading. Our point was that the 84.5% rate of capacity was the third lowest rate in the past 10 years.

Change of Pace

Dear Sir

Your forward-looking article on the 1975 economy [BW—Mar.8'58, p130] is a refreshing change of pace from the shortsighted views of the 1958 gloom-mongers.

The future is bright. Companies with good long-range planning can see beyond short-term dips—and take advantage of such situations while continuing the growth and expansion they need to remain competitive in the years ahead.

BRUCE PAYNE

PRESIDENT
BRUCE PAYNE & ASSOCIATES
NEW YORK, N. Y.

Anti-Liquor

Dear Sir

Your article revealing the liquor sales by various companies . . . [BW —Mar.1'58,p43] reminds me of the words of Oliver Goldsmith:

I'll fares the land, To hastening ills a prey, Where wealth accumulates, And men decay.

JAMES B. LEFTWICH

HOUSTON, TEX.

First in Beer

Dear Sir:

Your article on beer sales in 1957 [BW-Feb.8'58,p48] leaves a rather erroneous impression. In it you state that Anheuser-Busch is the nation's topselling beer, replacing Schlitz. While it is true that Busch regained leadership as the largest brewer in the world, this was accomplished by brewing three brands of beer: Michelob, Budweiser, and Busch Bavarian. The Jos. Schlitz Brewing Co. produces only one beer, Schlitz, and it is estimated that Schlitz sales surpassed the sales of its nearest competitive brand by at least 500,000 barrels or 7,000,000 cases. SANFORD J. SHAW

KENT, OHIO

 What we meant to say was that Anheuser-Busch is now the country's largest brewer.

The Profit Squeeze

Many a medium-sized manufacturer finds his earnings are constantly diminishing in relation to volume; Yet he can often improve this situation from within

ASK most businessmen today about sales and they seem fairly confident. Bring up profits and they change the subject. Higher costs of all kinds are cutting seriously into the earnings of the many companies whose volume are not increasing.

BUSINESS-PAGE headlines report how this squeeze affects large corporations. But it's the smaller outfits who feel it most. Their slimmer profit margins will only stretch so far to absorb added costs, yet price increases are dangerous if the big boys hold the line. Equally bad, lowered retained earnings limit, sometimes even prohibit, needed expansion.

FACED with these facts, more and more companies are re-examining their own operations, searching within for hidden profit leaks. What they find missing is a system of modern management control - fast, accurate reports which enable you to spot trouble almost as it's happening, instead of long after the damage is done. Such systems exist, of course, but most of them are too complicated or too costly for small to medium-sized companies ...

With one exception-Keysort.

THE KEYSORT PLANT CONTROL PLAN WAS designed to provide modern management control in terms of the facilities of a growing company. With Keysort, you need only 5 reports - 1 daily, 2 weekly, 2 monthly - to put you in full control of your business and your profits. On your desk immediately following the last work day of the period, these reports cover 1) labor costs and distribution; 2) cost recovery: 3) work-load and excess cost; 4) plant operation; 5) comparative earnings. In addition, PCP may be extended to give you similarly timely reports on job costing and workin-process.

THESE flexible, on time reports are so simple to produce that in many cases the job can be handled completely by existing office personnel - without disrupting your present accounting procedures. Their cost is remarkably low - approximately that of one additional shop employee.

THE nearby Royal McBee man has a presentation which will show you how it's done. Phone him, or write us for an illustrated folder containing an example of each report.

MCBEE KEYSORT

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ROYAL MCBEE Corporation PORT CHESTER, N. Y., Offices in principal cities. In Canada: The McBee Company, Ltd., Toronto 16

Why Reynolds calls Aluminum "The Metal for

"Automation" is a relatively new word in the vocabulary of industry. There are many who wish it could be precisely defined.

But it is fairly well agreed that the aim of automation is to increase efficiency of output through continuous automatic production.

And when the use of new machinery or new materials or new techniques can cut production time from one week to one hour, a precise definition of just what did it is relatively unimportant. Automation has brought about just such dramatic improvements in production efficiency.

And planners of automatic production processes (automation?) are gazing fondly at aluminum, because of aluminum's unique combination of characteristics: strength, lightweight, workability.

Aluminum is Strong. Pound for pound, aluminum is far stronger than steel or copper or brass or bronze or zinc.

Aluminum is Light. In any process which moves material, it obviously requires less energy to move one pound than to move two pounds. So aluminum saves energy (or can increase speed) in:

Automatic loading and unloading of machine tools and presses.

Transferring of parts-in-work between tools.

Assembly.

REYMULDY

All materials handling operations.

But aluminum has more than mere light weight to offer.



Automation"

Aluminum Can Be Formed In Many Ways. Production of aluminum parts is not limited to rolling and forging and sand casting. Aluminum can be hot-extruded, impact extruded, die-cast—processes ideally suited to automation.

Aluminum is Easy to Machine. Aluminum can be machined faster than most present machines will work. One manufacturer is machining an aluminum part at 2000 surface feet per minute. This compares with typical speeds of 500 surface feet per minute for similar cutting of steel.

Aluminum Saves Costly Steps. Because aluminum products can be made by processes uneconomical or impossible for steel, many parts are being formed of aluminum ready for assembly with little or no machining. One manufacturer switched to cast aluminum for a part, and eliminated drilling, reaming, and tapping. Another large and complicated part is die-cast in aluminum in one piece, eliminating multi-part machining, alignment, and assembly. Many manufacturers make completed high-quality wrought parts, no finishing necessary, with one press stroke—drawn or impact extruded from aluminum, with inexpensive dies.

The Future Is As Bright As The Metal. As designers and engineers—and comptrollers—learn more about the dollars and cents advantages of aluminum, the future of aluminum for those who use it looks brighter and brighter.

Already manufacturers are taking advantage of the fact that aluminum sheet can be pre-polished in the final reduction rolls at the mills.

Already designers are studying ways to use the automation potential of aluminum strip conductor in electrical applications. One has worked out a method whereby 12,000,000 storage battery conductors could be produced on existing equipment in 12 days, using aluminum and its potential for automation.

Already the planners for tomorrow are thinking of new machines and new systems that will adequately exploit the advantages of the metal that can be rolled, die-cast, forged, spun, drawn, hot extraded, impact extruded, pierced, pre-painted, pre-enan-illed, anodized, porcelained, etched, embossed, soldered, brazed, welded, and machined at fantastic speeds . . . the strong, lightweight, rustfree metal that does more jobs better: Reynolds Aluminum.

Aluminum can save time and cut costs in many ways: machining, finishing, handling, shipping, installation. So before you produce any part or product, have it designed and priced in aluminum.

And for help in design, production—even for parts fabrication—call on Reynolds.

Phone your nearest Reynolds Office or write Reynolds Metals Company, P.O. Box 1800-GA, Louisville 1, Ky.

Watch Reynolds All-Family Television Program "DISNEYLAND", ABC-TV.

REYNOLDS ALUMINUM

the metal for automation

Huyck develops whole navigation systems

That's Huyck's capability. Producing the hardware that will enable a pilot to keep up with the critical split-second demands of modern flight. Developing the advanced instrumentation for tomorrow's aircraft. In short, to allow flesh and blood to perform way beyond its earthbound capacity.

This is the exciting area in which Huyck's Waldorf Instrument Division works.

Example? A remarkable all-weather navigation system unlike anything now in use. It can guide a pilot surely and safely to anywhere from anywhere in the world. It senses. It computes. And then ingeniously presents the whole flight picture to the pilot visually. Complicated? About as complicated as looking at TV! A sub-miniature

system, it fits neatly in the instrument panel. The big difference between it and other such systems is Waldorf's unique "building block" approach. Which makes it possible to adapt the basic computer to the changing navigational problems of high speed jet liners, helicopters, missiles and even satellites.

It's the latest example of what Waldorf is doing in the field of automatic air navigation. It's just one illustration of the scope of capabilities of Huyck's Waldorf Division. Waldorf inventiveness embraces idea, design, development and production in three major fields—electronics, precision mechanisms and fluid systems. For a closer look at the Waldorf Division of Huyck (pronounced "Hike"), write for literature.

Waldorf Instrument Co. Division

F. C. HUYCK & SONS

Huntington Station, L. I., N.Y.

around this base



"...and we saved again this month with help on purchasing from Ryerson"

More and more, cost-conscious management is receiving reports like this—as a direct result of dollar-stretching planned purchasing from Ryerson.

Buying cut-to-size steel the fast, convenient Ryerson way cuts your costs by making it safe to carry lower inventories. This, in turn, means reduced investment in equip-

ment as well as materials—and cuts storage space, handling costs, scrap loss, taxes, etc. You're never overloaded...you're never caught short. You avoid jamming up smooth-flowing production lines... wrecking carefully calculated production schedules.

A Ryerson specialist is as near as your telephone—prepared to recommend the best types of materials and show you how Ryerson unequaled stocks and facilities can be put to work for you.



RYERSON STEEL

Member of the Steel Family

Principal Products: Carbon, alloy and stainless steel—bars, structurals, plates, sheets, tubing—aluminum, industrial plastics, metalworking machinery, etc.

JOSEPH T. RYERSON & SON, INC. PLANTS AT: NEW YORK . BOSTON . WALLINGFORD, CONN. . PHILADELPHIA . CHARLOTTE . CINCINNATI . CLEVELAND DETROIT . PITTSBURGH . BUFFALO . INDIANAPOLIS . CHICAGO . MILWAUKEE . ST. LOUIS . LOS ANGELES . SAN FRANCISCO . SPOKANE . SEATTLE

BUSINESS OUTLOOK

BUSINESS WEEK

APR. 5, 1958

Consumers are paying off old debts as never before.

That hurts business now. But, if you want to look on the bright side, this will enable people to buy more sometime in the future.



Caution on the part of the consumer naturally shows up quickly in the way he uses installment credit. That was true in the recession of 1954, and it is even more true today.

Repayments exceeded new borrowings by \$800-million in the first two months of 1958. Four years ago, the cut was \$640-million.

This year's cut brought installment debt down to \$33.3-billion against December's record level of \$34.1-billion.

Paying off debts is the normal thing for consumers early each year.

Installment credit outstanding always drops in January. However, it never declines much in February if business is good and it often rises. (In 1956, for example, people borrowed a little more than they repaid during February. In 1957, the balance was slightly the other way.)

But in the second month this year net repayments were \$435-million—not only the largest for any postwar February, but bigger even than January.

Everyone has known, for a great many years, that installment buying is a highly dynamic factor in our economy. Such credit has, in fact, been equivalent to fully 20% of all retail volume in recent years.

But it is equally clear that it can't go on rising indefinitely.

When personal income falls off—or prices outpace income—there's a tendency toward debt repayment. Probably this is more often the result of a recession than the cause of one—but it hurts.

Repayment of debt is saving, in an economic sense, just as truly as putting money in the bank. In terms that more people can readily understand, repayments place consumers in a position to borrow again.

Either way, a washdown in debt stores up future purchasing power. That's today's consolation; after all, 1954's payoff preceded 1955's boom.

Detroit probably finds little solace in the thought that consumer's caution now should be the forerunner of better sales tomorrow.

At any rate, the auto industry has just turned in the poorest production figure for any March since 1948. The first quarter was the worst since Koreapinched 1952.

If that isn't enough, the year's first half looks as if it will be the saddest one of the last decade. The schedule now calls for about 2,375,000 cars—far behind 1954 and a mite below even 1949 although somewhat larger than 1952.

Even the sharp cuts in auto output haven't been enough to stem the rise in dealers' stocks of new cars.

March output was lower than February, an almost unheard of thing.

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK APR. 5, 1958 Yet the month's 365,000 out-turn probably exceeded registrations by a few thousand. First-quarter output topped domestic sales by 250,000.

Now, as though bad business and bad weather hadn't hurt auto sales enough, there has to be a **new roadblock**. It's the **talk of a cut** in the manufacturers' excise tax. This presumably would be passed on to the buyer—and the buyer, as you might expect, is waiting.

Metal markets, after momentary indications of stabilizing, ran into new troubles this week. Copper, to be sure, hadn't given up all its recent gains, but that was about all you could say for the situation.

Zinc and lead had only a tariff hike to look forward to after the announcements that stockpiling was ending. Lead was cut 1¢ a lb.

Steel output sank below 50% of capacity. Prices for steel scrap went on sliding. One producer announced another cut in aluminum output following last week's 2¢ slash in the metal's price (page 36). Tin futures fiopped.

Copper did fairly well, all things considered. Perhaps the walkout in Anaconda's big Chilean mine helped price sentiment. Yet futures edged off at midweek, and London's spot market recorded its first downturn of any proportions in nearly a month.

Efforts to strengthen the housing market haven't yet brought any conspicuous results. The latest compilation by F. W. Dodge Corp. lists February contracts totaling \$727-million.

That represents a widening of the year-to-year decline to 17%.

More mortgage money, if that will help housing, is surely at hand.

Just to make certain, the Federal Home Loan Banks (the Federal Reserve of the savings-and-loan system) sold \$290-million of bonds this week to provide additional funds for advances to its members. Simultaneously, the Chicago Home Loan Bank cut the rate on such advances to $3\frac{1}{4}$ %.

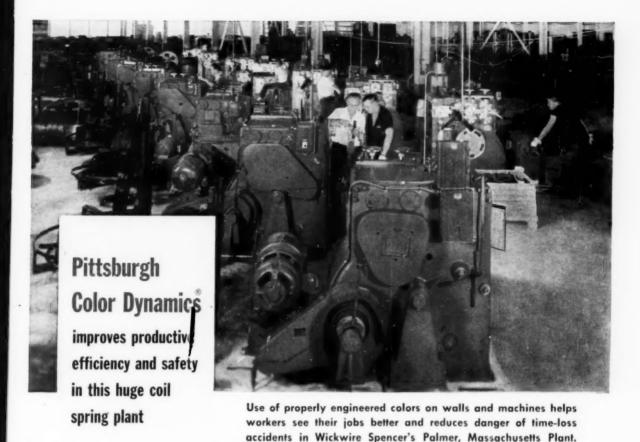
Slack demand and price erosion at home and market-upsetting production abroad are discouraging the hunt for new oil. That, plus present regulation of natural gas, has its effect on drilling supplies.

Humble Oil, which spent more than \$146-million on drilling activities last year, expects to slash the outlay about a third in 1958.

The attitude of this company (big domestic crude producing and purchasing subsidiary of Jersey Standard) is pretty typical; wells now being drilled in this country number some 30% less than a year ago and last year ran considerably below expectations.

Better availability of steel coincides with less oil exploration to drop sharply the demand for drill pipe. In fact, steelmen now complain that oil people are swapping surpluses around among themselves.

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Improved seeing conditions that increase productive efficiency . . . More pleasant work areas that improve the morale of workers . . . Safety colors that reduce danger of accidents. These are benefits resulting from the use of Pittsburgh color DYNAMICS in the Wickwire Spencer coil spring mill at Palmer, Mass.

• This division of the Colorado Fuel & Iron Corporation is one of the nation's largest producers of coil springs. It produces extension, compression and torsion springs of many types for motor vehicles, farm implements, heavy industrial machinerv as well as for home use.

• "We selected colors for our Palmer spring mill according to Pittsburgh's painting system of COLOR DYNAMICS, states Fred Lindstrom, C. F. & I. New England District Manager, "to improve working conditions. Colors were used on walls and ceilings that raise the light level in work areas. Stationary and moving parts of machines were painted with colors that permit operators to see their jobs with minimum eye strain. Safety colors on machinery and traffic lanes have lessened accident hazards.

• "All of these improvements have increased productive efficiency and morale. We believe they have also given our operators greater pride in their surroundings. This pride makes them keep their machines bright and their departments clean, simplifying housekeeping problems. And with COLOR DYNAMICS we get these benefits at no greater cost than conventional maintenance painting.'

• This Wickwire Spencer spring mill is only one of many thousands of plants in which efficiency and morale has been improved by COLOR DY-NAMICS. Why not try it in your plant-on a machine or two or in a department-and see the difference it makes?

How You Can Get A Color Plan For Your Plant-FREE!

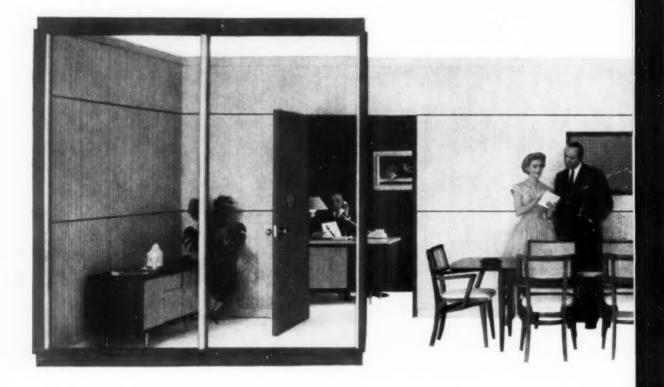
· We'll be glad to mail you a fully-illustrated book on how to use COLOR DYNAMICS in industry. It explains simply and clearly what this painting system is and how to use it most advantageously to improve productive efficiency

and safety. Better still, we'll be glad to make a color plan of your plant without cost or obligation. Call your nearest Pittsburgh Plate Glass Company branch and arrange to have our representative see you. Or mail coupon at right.

Send for a Copy of this FREE Book Pittsburgh Flate Glass Co., Paint Biv., Department B.W.-48-Pittsburgh 22, Pa. Please send me a FREE copy of your booklet "COLORDYNAMICS." Please have your representative call for a COLOR DYNAMICS survey without obligation on our part County State



TSBURGH PLATE GLASS COMPANY



HAUSERMAN now meets every space division requirement from high style to low price

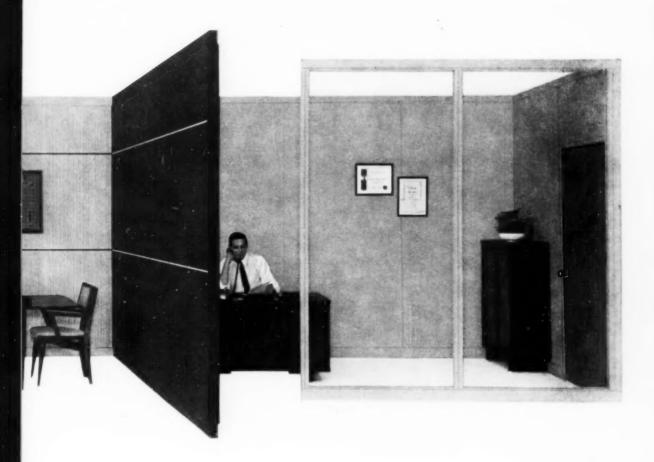
The widest possible range in design, material, function and price is now available in HAUSERMAN'S new complete line of movable walls.

For example, the walls of the impressive board room shown above are examples of Hauserman's beautiful new Horizon system. With custom-selected materials and design, they were used to create an atmosphere compatible with the function of a board room. The adjoining office, on the other hand, represents functional, attractive, low-cost space division. This, too, is an all-new wall system that is trim, flush and in harmony with the custom-designed Horizon Walls.

For executive areas, general office, plant or institution, there is a Movable HAUSERMAN Wall to fit every need, taste and budget. Consult the Yellow Pages (under Partitions) and call your nearest HAUSERMAN representative today about complete-line space division. Or, you may write the home office (address below) for a free copy of a new full-color book covering the HAUSERMAN complete line.



MOVABLE HAUSERMAN





HAUSERMAN'S new, low-cost movable walls are ideal for departmental segregation. And, they can be easily rearranged whenever necessary.



Despite their low initial cost, these walls are attractive. And imaginative use of clear and obscure glass and colors enhances this appearance.



Here is economical space division complete with movability, ready access to utilities, and easy, low-cost maintenance of the lifetime finish.

INTERIOR WALLS

A complete line to meet every space division need



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works...to hire

key people

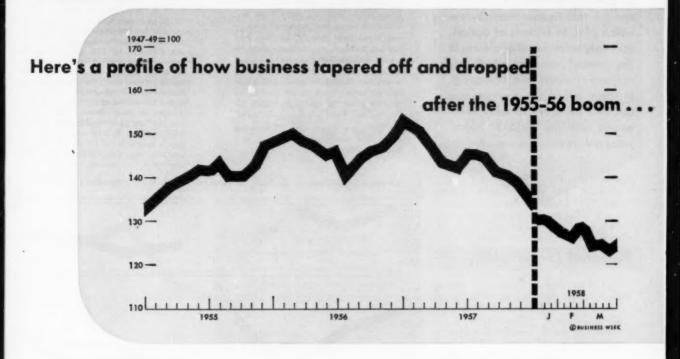
B. E. U. gives you the forceful new sales idea you need to hire and hold the best workers. We were first to answer the vital need for **Better Employee Understanding** of group benefits. We developed **B. E. U.** through research and long experience. We alone offer it. Find out more. Write: Connecticut General Life Insurance Company, Hartford.

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CONNECTICUT GENERAL



NUMBER 1492



How the Slump Got That Way

In perspective, it began with 1955's record consumer spending. That inspired business to a lavish creation of new capacity. Then, all together, capacity overshot, government spending dropped, money tightened—and the result was recession.

This is a time when government, business, and labor desperately need a clear fix on what's been happening to the U.S. economy-and where we are heading.

In economic change, what's past is prologue. So-when did this slump really start?

Any date for the onset of the third postwar recession must be somewhat arbitrary. Business activity, as measured by the BUSINESS WEEK Index (chart. above), hit an all-time high at the end of 1956, has since dropped over 18%. But gross national product rose quarter-by-quarter from mid-1954 until it dropped in the fourth quarter of 1957; from the end of 1955 on, however, GNP had been moving up at a slower rate, particularly when measured in dollars of constant value. Employment peaked in July, 1957. Unemployment rates, seasonally adjusted, began steadily creeping upward in April, 1955, and really shot up in January and February, 1958. Overtime hours and weekly hours have been declining since December, 1956.

· How It All Began-But trying to fix the time when the recession began is obviously far less important than discovering how and why it happened. The anatomy of this recession is exposed in the charts on the following pages. Clearly, they show that the seeds of decline were sown in the great-and unforeseen-consumer spending boom of 1955.

fust how unusual a jump in consumer spending this was is revealed in an econometric analysis made for BUSINESS WEEK by Prof. Daniel Suits, director of the University of Michigan's Research Seminar in Quantitative Economics. In terms of past relations between consumer spending and income, taxes, liquid assets, and population, Suits calculates that consumption in 1955 should not have risen more than \$11-billion. But, in fact, consumption jumped \$18-billion. The biggest factor behind this extra \$7-billion jump in buving was a terrific increase in consumer debtwhich rose \$5.8-billion in 1955 (compared with an \$0.5-billion rise in 1954). Detroit set all-time records that year for auto production and sales. So did sales of most consumer durables. At the same time, families added \$12.5billion to their mortgage debt-and housing boomed. The total boost in individual debts in 1955, then, topped \$18-billion.

• Cause and Effects-From this boom in consumer buying, everything else

U.S. economic growth in peacetime is essentially self-accelerating — and self-braking. Different parts of the economy, as they grow, produce a complex pattern of leads, lags, and feedbacks that periodically breed recession. You can see this in the charts below which plot, in billions of dollars, quarterly increases or decreases in the annual rates at which key economic sectors are operating. In these interacting swings, you can find the story of what went wrong with the 1955-57 boom. what got us where we are today.

Personal consumption

Inventory Accumulation

New orders for capital goods *

Capital spending

Defense spending

Net U.S. Exports

*BUSINESS WEEK Estimate
Date: U.S. Government Statistics

How the boom shifted - year by year

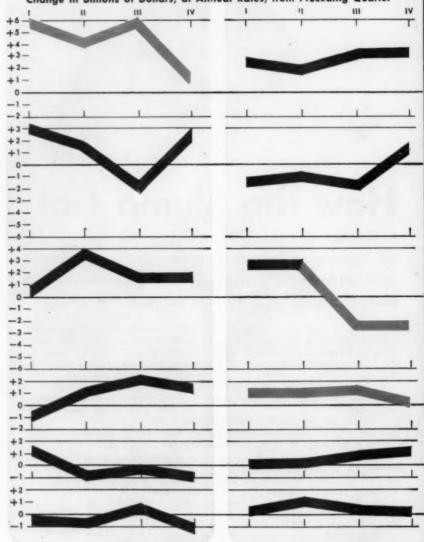
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Consumer spending brought the U.S. economy out of the 1953-54 recession fast. Consumers had boosted their annual rate of spending by \$4-billion in the last quarter of 1954. Through the next three quarters of 1955, personal consumption kept growing at record rates, jumped \$18billion for the year as a whole. To do this, consumers saved less, borrowed more installment debt rose \$5.8-billion. And housing boomed, as mortagge debt increased \$12.5-billion. This great consumer spending boom set business to building inventories. And businessmen could see that the buying boom would soon outrun their capacity. So they jumped their orders for new plant and equipment. Soon. therefore, capital spending, still declining in the first quarter, turned around and began to pick up steam.

1956

Kicked off by the 1955 consumer spending boom—which brought business a \$5-billion jump in profits-capital spending on new plant and equipment kept climbing throughout 1956. For the year as a whole, business capital spending rase \$6.4-billion above 1955-a 22% increase. But consumer spending, after its 8% jump in 1955, grew by only 5% in 1956-and, since consumer prices rose by about 3% in 1956 (where they'd been stable in 1955), the real increase in consumption was only 2%. To curb rising prices, the Federal Reserve checked the growth in the money supply; interest rates rose, and lenders shifted away from mortgages, so housing starts dropped 16%. But despite higher money rates, capital spending plunged on, and industrial capacity began catching up with consumer demand. After midyear, new orders for capital goods began to fall off. By year end, inventories were rising fast, and industrial production had peaked.

Change in Billions of Dollars, at Annual Rates, from Preceding Quarter



into recession

1957

From the start of 1957, the boom was fading. Business capital spending virtually stopped growing. New orders for capital goods continued to fall off. But two earlier political developments gave the economy a deceptive glow of health in the first part of 1957: the rise in government spending, especially fornational defense, and the jump in net U.S. ex-ports after the Suez crisis. As 1957 were on, these stimulants became depressants: The Suez Canal reopened, and U.S. exports declined; and the Administrationstrapped by the national debt limit-slashed defense orders and spending. With money tighter than ever, defense contractors all but panicked-started layoffs, heavy inventory cutting. That did it: Business firms generally cut output to reduce inventories, slashed new orders for capital goods, reduced capital outlays.

1958

Now the economic feedbacks which generated expansion in 1955 are still generating contraction. Output is down; income is down; employment is down. Nearly 8% of the labor force was jobless in February, Consumers' are cutting their buying, trying to save more and reduce their debts. Business sees excess capacity, excess inventories, falling profits; so it cutscapital spending, reduces output further to pull downinventories, tries to cut costs—without cutting prices.
On the plus side—government policy has gone into reverse: The cutback in de-fense spending is over—at least for the time being. So is the tight money policy. Today's biggest economic question: Can the private economy make the turn upward this time with only a moderate assist from government? Recent economic growth was self-reversing; is this recession self-reversing too?

-+2 Worst impact or HIHITITI Heaviest slashes may -+2 -+1 Still dropping - with worst impact on economy still ahead With Wort vary much

followed, as the charts on this page clearly show. Climbing sales caused business to lay in heavier inventories. As output began to move toward capacity ceilings, industry boosted new orders for capital goods—and soon the flow of money for new plant and equipment was rising. Capital spending was in full swing by the end of 1955 and continued on into 1957. But between the end of 1955 and mid-1957, something had gone wrong. What was it?

I. A Textbook Cycle

Basically, the thing that went wrong was that consumer borrowing, spending, and income stopped growing at abnormal speed and returned to a more normal—or slightly less than normal—pace, while business capital spending, set in motion by business plans laid during the buoyant days of 1955, plunged upward.

Harvard's James Duesenberry put the matter this way to a BUSINESS WEEK editor: "First, income rose relatively slowly all through 1956 and 1957, and the average growth of real GNP was a bit under 2%. This was slower than other postwar periods. It had been quite a lot higher between 1949 and

"But rates of capital formation as percent of income averaged just as high as any other period. The highest rates were in 1956 and 1957....

"So what you have is steady growth of capital stock and slower growth in income. This makes further growth in capital stock unprofitable and creates a profit squeeze." The profit squeeze ended by throttling back capital spend-

Meanwhile, the Federal Reserve Board was trying to head off inflation. Its tight money policy hardly touched the capital spending boom in 1956. But it did hurt housing—because government-insured or guaranteed mortgages at fixed rates looked unattractive to investors compared to higher-yield investments. In addition, the fall-off in housing starts had a perceptible effect on demand for other consumer durables. This helped widen the gap between rising capacity and more slowly rising consumption.

• Inevitable End?—Was the economy caught in a tragic drama that had to end in rocession?

Could the Fed-or the Treasury-have eased up in 1956 or in 1957 and gotten more spending money into the hands of consumers? Duesenberry appears to see the fate of the 1954-57 expansion as indeed inevitable:

"If the Fed had eased up and income had gotten up \$5-million more," says he, "you would still have overaccumulated capital. And an extra bit of demand in '56 might have caused a much

more serious speculative boom." Such a speculative boom, says Duesenberry, would have burst with greater and more

ruinous force.

Harvard's Arthur Smithies feels the present recession is a prime instance of an inherent mechanism in the U.S. private economy. "The basic factor in the current recession," he commented last week, "is that the economy generates capacity faster than demand. Unless we have some powerful external stimulus as we had at the end of the war or during the Korean War, we tend to generate overcapacity. It's a persistent tendency of our economy.

And it's a tendency that neither economic policymakers-nor economistshave yet been able to find means of handling, except in abstract theoretical

· Uncertain Progress-In the real world, as the current recession has proved, economic growth is still a jerky, unstable process. Columbia's Roy Blough describes the mechanism of growth, as we've just been watching it, like this: "In order to have growth, you have to have adequate expansion in spending in each quarter by consumers, government, or business-total spending has to increase. And this spending has to be in excess of income in previous quarters. So you need either an increase in the velocity of income, or some sector has to run a deficit, either by running down its resources or by going into debt."

In the late, lamented boom, Blough remarked, we had an expansion in business borrowing, housing, and consumer credit—"and part of the increase, in con-sumer credit," he says, "was apparently due to an institutional change—new kinds of goods and services were financed with consumer credit." To maintain growth, Blough adds, "this kind of growth had to go on-and at

an expanding rate."

· Going Too Far-But, says he, that just couldn't happen: "One of the reasons was the automobile situationconsumer taste was involved herewhere you had a lot of consumer credit extended in 1955 for cars in which the borrowers' equity was very small. This expansion of consumer credit couldn't be maintained, partly because these purchasers took much longer to repay, and didn't come back into the market." And on the business side, spending had gone too far-plants were expanded beyond clear-cut needs. "A lot of companies," Blough says, "expanded because they didn't want to be left out of the wave of the fu-

This drive for expanded capacity that overshot itself has produced, as Sir Geoffrey Crowther, managing director of The Economist, put it this week, "the very textbook model of a classic trade cycle," which ends with a drop in investment-both in fixed capital and in inventories.

II. Government's Role

However, the 1957-58 recession did not happen in a textbook author's mind; certain "noneconomic" events intervened-first to prolong the boom's life, then to seal the boom's doom.

In early 1957, when the expansion had already run its course, the economy was bolstered by a very rapid rise in government defense outlays. This created more of a boom pyschology than may have been warranted by hard-tosell consumer markets. And there was a further boost when the Suez crisis led to a new increase in government spending for foreign aid and provided a special lift for exports. These factors-increased government outlays for defense and foreign aid, the export boom, and a general inflationary state of public thinking-had stimulating effects on the economy that offset some decline in demand for consumer durables and the falling off in new orders for capital

Then, in late 1957, just when new orders for capital goods were off sharply, and capital goods production was starting to drop, the government belatedly began putting its fiscal house in orderpressed by the necessity of staying under the debt limit. With revenues seasonally low in the second half of the year, this could only be done by holding down expenditures. And these were in a rising trend, based on outstanding orders for defense goods. The govern-ment adopted measures of unprecedented strictness to forbid new expenditures in various civilian fields, canceled or stretched out many defense contracts, and deferred payments on

The annual rate of cash payments by the Pentagon was cut from \$42billion in the spring to \$38-billion in one month late in '57. New defense contracts were cut from a rate of \$18billion per year in the first half of 1957 to \$12-billion in the second half.

 Almost a Panic—Defense contractors strapped for funds, were hard-pressed to get the loans they now needed, with the banking system still tightly restricted by Federal Reserve actions. They became so uncertain of government intentions that they began to cut their own programs, unload inventory, reduce payrolls, cut plant and equipment spending. The Pentagon slash in defense spending and orders produced a near-panic-the 1957 equivalent of the kind of panic that has in the past broken out in Wall Street or other financial centers and written finis to earlier booms.

Though these defense cutbacks were

small in relation to total private expenditures, they were widely publicized and had important effects on business and consumer confidence. They gave what was left of the boom its coup de grace.

The country felt the chill of a crisis of confidence-aggravated by concern over the first two Russian Sputniks, and

by the President's illness.

The 1958 auto models came outbilled as the saviors of 1957's fourth quarter-and they flopped. The recession was on for fair, and it looked like a good stiff one.

III. How Bad Is It?

Among economists today, there is virtual unanimity that this slump is more serious than the last two postwar recessions. Unemployment has risen faster. Employment has fallen faster. Industrial production has dropped more sharply. Housing has been sagging, where in the 1948 and 1953 recessions housing held level for a few months, then began to climb strongly. Manufacturers' new orders are still fallingwhere, at this point in 1948's recession, they were holding firm and in 1953 were already rising. Inventories have dropped

Most disturbing of all, the fall in business spending on plant and equipment has been faster than in 1953, and about as fast as in 1948-but this time the decline in capital spending promises

to be more prolonged.

· Two Views-Among a minority of economists, there are worries that this drop may be the "climactic" business cycle decline that follows a great warsometime after two or three lesser recessions. They support their case by arguing the end of the postwar housing boom, the shift in the age composition of the population (essentially, the coming of age of the "hollow generation," which means a small family formation rate), the exhaustion of the wave of industrial innovations ushered in by World War II, and the exhaustion of economic growth floated by the vast expansion of public debt.

But the majority of economists find the ingredients of a real depression missing now. They point out that there has been no violent speculation, no liquidity crisis. Business and consumer cash reserves were still relatively high in late 1957, and the Fed is making more credit available-somewhat belatedly, many economists believe. The country's financial picture still looks good-compared to the perilous state of the banking system after the 1929 crash. Government policies to stimulate some revival in the consumer sector, and eventually in private investment, still look as though they would be effective, and not be drowned in the tidal wave of an all-

out collapse.

Oilmen Jeer at Import Quotas

Domestic producers, hard hit by the recession, protest that the Administration's latest "voluntary" cutbacks of crude imports won't make even a dent in their problems.

U. S. oil producers, squeezed between foreign oil imports and a faltering domestic market, say the Administration's latest effort at a "voluntary" solution to their problem comes too little and too late.

Pres. Eisenhower has approved a Cabinet committee recommendation that crude oil imports into the area east of the Rockies be limited to 12% of domestic production in the area. That's 713,000 bbl. per day, about 60,000 b/d less than the previous goal set by the government.

The program is "voluntary," but the President has signed an order aimed at cutting Pentagon purchases of petroleum products from offenders.

The nation's independent producers have lost faith in "voluntary" solutions; and they say the cut is insufficient, anyway. They are backing proposed legislation to clamp mandatory controls on the import of crude oil and refined products.

There's a real chance they will succeed. If they do, Eisenhower's hopes for Congressional extension of a liberal

trade policy are doomed.

• Buildup—For almost 30 years, independent oil producers' demands for protection against foreign oil have won little sympathy from Congress. But the problem worsened after World War II as imports from the Middle East and Venezuela jumped dramatically, and spiraling costs in the domestic industry made it more difficult to compete with foreign oil.

In 1955, a bloc composed of coal producers and domestic oilmen came near winning enactment of a law limiting imported oil to 10% of the U.S. market. This was averted only when Congress set the ratio of imports of crude and products to domestic produc-

tion at 16.6%.

However, despite Administration efforts to persuade the big international companies to this level, imports continued to climb, even during the Suez Canal crisis when U.S. oilmen were being called upon to make emergency

shipments to Europe.

• Clamp Down-Finally, last summer, the White House decided to clamp down (BW-Aug.3'57,p26). A new program was adopted under which importers were told to hold imports into the area east of the Rockies to 756,000 b/d-later adjusted to 771,000 b/d-or face mandatory government controls. Later, the West Coast area was brought

into the program with a quota of 220,000 b/d.

Domestic oilmen were ready to accept the program at the time. And the importers, anxious to stave off government restraints, largely cooperated. However, oilmen—and the government—failed to reckon with the budding recession. Whereas petroleum demand normally gains 4% or more per year, it has dropped 4% below year-ago levels in the past six months.

The result is hardship in the oil industry, and renewed demands for stiffer

government controls.

Texas, which once considered 18-day producing months normal, is allowing only eight days in April. And other major producing states have also been affected. In some areas, drilling rigs are being stacked. Total well completions in the first months of 1958 are 8% below the 1957 level, and wildcat drilling has dropped even more.

Gov. Price Daniel estimates that the Texas economy is losing \$1.5-million a day due to the production cutbacks. In the next 18 months, the state stands to lose millions in tax revenue.

• Reactions—If the Administration's new program was intended to stop the oilmen's drive for legislative protection, the effort appears to have failed.

Independent producer groups, and officials of producing states, say the 60,000 b/d cut amounts to hardly half a day's production in Texas alone. Some industry sources see possible loopholes that can cut the impact even more. For one thing, the program does not include oil product imports. Second, even an effending company apparently can continue to sell to the government as long as it sells only domestic oil. Finally, the order may be open to legal challenge.

Steps—The coal and fluorspar industries are expected to join 22 oil producing associations in backing a bill introduced this week by Rep. Frank Ikard (D-Tex.), a member of the House Ways

& Means Committee.

Ikard's bill would direct the President to limit imports of products and crude to the 16.6% ration. The same yardstick would apply to fluorspar products. In the case of oil, the President would have authority to allocate the quota among supplying countries.

A more controversial provision: Individual importing licenses would be auctioned off. This is bound to arouse cries of discrimination against small com-

panies.



Monetary Probe Revives As Baruch Leads Parade

The Senate Finance Committee got its derailed monetary hearings back on the track this week, but there is mixed opinion over how much momentum it can generate. To get the revived hearings off to a splashy start, Chmn. Harry F. Byrd (D-Va.) called on his long-time friend, Bernard Baruch (picture), to appear in two days of televised hearings in the Senate's ornate caucus room.

Baruch, who shares Byrd's view on

fiscal and monetary matters, was one of the witnesses the chairman wanted for the opening of the hearings, which have been recessed since last summer.

• Kerr's Slant—Democratic members of the committee, led by Sen. Robert S. Kerr of Oklahoma, will accuse the Administration of having caused the downturn in economic activity by its credit policies. Even with credit somewhat easier, Kerr will charge that current interest rates are prohibitive for farmers and small businessmen, whom he points out as major recession victims.

Kerr would like to see the Federal Reserve Board lower its discount rate from the present 24% to no more than 2%, and he would like to see its Open Market Committee buy government bonds until the prime interest rate is forced down to no more than 3%.

• Next Witnesses—Kerr is sure to press his views on witnesses when the committee picks up the hearings after the Easter recess. The schedule calls for Marriner Eccles, former chairman of the Reserve Board, on Apr. 16; Dr. Sumner Slichter, Harvard University economist, Apr. 17; William McChesney Martin, chairman of the Board of Governors of the Federal Reserve System, Apr. 22-23; and Dr. Seymour Harris, Harvard University Economics Dept. chairman, Apr. 24.

How Federal Spending Shoots

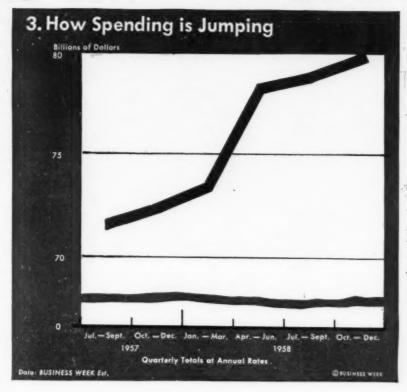
1. This Is Already Being Done

	Totals Involved	How Soon Felt
Orders to Lubor Surplus	\$100-million in truck, vehicle orders.	Contracts al- ready placed; some still to come.
Defense Spendleg	Contract awards January-June will double July- December, 1957 Calendar 1958 should total about \$20-billion, against 1957's \$15.3-billion.	Actual spending won't rise so fast; but cash outlays may rise \$1-billion this quarter.
Military Pay Raise	\$600-million a year increase.	Effective soon as bill is signed.
Unemploy- ment Com- pensation	\$500-million to \$600-million over the next year.	First checks perhaps by May.
Shiphuilding	Long-term gov- ernment program will mean \$2- billion of work over 10 years.	Calendar 1958 output will total \$400-million, up from \$250- million last year.
Local Public Werks	\$75-million re- leased by White House for con- struction loans.	Already being allocated.
Reclamation	\$20-million extra approved.	Already has pre- vented shutdown of two projects.
Rivers, Harbors, Flood Central	\$850-million in new projects.	Contracts to be let by July 1.
Housing Funde	\$177-million un- frozen.	In effect since January.
New Housing Law	\$1.5-billion for mortgage pur- chases; plus \$300-million for direct lending.	Lower downpay- ment terms effec- tive this month.
Now Highway Law	\$3-billion-plus in grants over three- year period; on top of \$7 billion under old law.	Allocation of \$600-million to states immedi- ately;\$3.5-billion in July.
Purchase of Covernment Buildings	Up to \$750- million could be financed under higher interest rates.	\$70-million in contracts to be let by July 1.
Non- Military Purchasing	\$840-million to be spent earlier than scheduled,	\$200-million to be spent before July 1.

2. This Is Now Being Proposed

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	Totals Involved	How Soon Felt		
Harbori. Naod Castraf	Eisenhower wants \$125-million in- crease over orig- inal \$444-million asked for fiscal 1959; Democrats will ask even more.	Would take effect after July 1; big- ger increase would quickly step up contracting and spending this fall.		
Alreofts	Democrats want to extend Federal Aid Program at \$63-million a year; otherwise it will die.	No impact for at least 15 months.		
Public Warks	Democrats would create \$1-billion loan fund to back state and local public works.	Impact depends on actual terms if it becomes law; first version of bill calls for 3½% interest rate.		
Treatment Plants	Democrats want to double present grants of \$50- million per year, raise ceiling to \$500,000 for each community.	Allocations would go quickly if law is passed.		
Hospitals	Eisenhower asks \$46-million on top of \$75-million asked in 1959 budget.	Allocations woud be made immedi- ately; demand exceeds funds available.		
Post Offices	Eisenhower asks O.K. of \$2-billion modernization program over three years.	Would be felt this fall if Congress approves.		
Government Buildings	Democrats backing \$200-million direct building program, instead of lease- purchase.	If approved, this would increase spending, and speed up construc- tion before end of year.		
Reclamation	Eisenhower has asked \$70-million to start several projects ahead of time.	Contracts would be let before July 1.		
	Democrats would push well above Administration's \$253-million budget.	Should be felt by fall, if they get their way.		
Atomic Power Plants	\$117-million being spent in AEC-built or AEC-aided pro- grams this year.	Democrats would sharply increase size of program; Impact of contracts would be slow.		

Up in Effort to Halt Recession



A substantial upswing in federal spending is already under way, as the chart and tables show. That is Washington's big weapon, so far, against the recession.

The amount of the rise, and its timing, sharpen debate over the major question confronting policymakers:

Will the increased outflow of dollars be enough—by itself—to stem the slump, or will a tax cut also be required?

Here are highlights of the spending

 A particularly sharp increase is planned for the quarter that began this week—enough to give the economy its strongest sustaining hand since the slump started.

• Administration officials are beginning to worry about long-run effects, warning that the spending rush can easily go too far. This is a sign that the pro-spending posture of the Administration in the past several months may in the near future be reversed, in the belief that the recession is at—or near—the bottom.

 The job-making effects of the spending rise will be a disappointment to the Democratic leaders of Congress who have been chiefly responsible for pushing the big public works projects and possibly to the Administration as well. Democrats in particular are pinning their hopes to Depression-born theories about public works spending as a multiplier factor in the economy. Today public works may not be creating nearly so many jobs as they think.

How Big an Impact?—In the Washington fiscal jungle, even the basic question—how many dollars are involved—is hard to answer.

The spending rise stems from a scramble of Administration orders and legislative decisions (table at left)—some taking effect immediately, some in the future. Some involve the government only, and are fairly easy to assess. But some involve decisions by private citizens—businessmen, home buvers, directors of rural electrification, co-ops—and the impact of these is a major puzzle.

This week, Business week reporters brought this collection of projects together, asked officials in the various agencies to assess their anti-recession potential, then checked with the key administrators in the White House and the Treasury for their probable impact on the actual outflow of dollars.

I. The Spending Push

Here's what government officials think will happen to spending:

· The actual flow of federal dollars

into the economy should rise \$1.3-billion this quarter over the quarter just ended. That will bring spending to an annual rate of \$78.4-billion—higher by \$5-billion a year than the annual rate of January-March.

• After this one big jump, increases are expected to continue for the rest of calendar 1958 at a slower pace. By the fourth quarter, spending may be at an annual rate as high as \$80-billion.

One big reason for this rise was disclosed this week: The Defense Dept. formally requested a \$1.6-billion increase in defense appropriations for the fiscal year starting July 1. Much of this is for long lead-time items such as Polaris-type atomic submarines and B-52 bombers. But some \$500-million will show up as actual cash outlays in the coming fiscal year.

• Definitely Up—A jump to an \$80billion rate is higher than many nongovernment fiscal experts think possible. Though implied by official estimates, the jump, they fear, may come more slowly due to the inevitable sluggishness of the vast federal bureaucraev.

Nevertheless, a spending total is shaping up for this year and next mark-edly higher than the budget makers foresaw last January. At that time, Eisenhower expected the total outlay in the fiscal year ending June 30 to reach \$72.8-billion, and next year's to be \$73.9-billion.

Actually this fiscal year will turn out to be about \$74-billion—up \$1.2-billion.

And next year is heading toward \$78-billion, in the opinion of one of the Administration's best informed fiscal experts—\$4.1-billion more than Eisenhower's original plan. Even this estimate implies a lower rate of expenditure in the second half of the fiscal year—from January to June, 1959—than in the first half, a turnaround that will be hard to achieve after a sustained upward climb.

Push—Then Cutback—The possibility of the current rise being followed by such a cutback during calendar 1959 is inherent in some of the Administration's favored projects.

Eisenhower, for example, has asked Congress to approve the immediate expenditure of \$840-million for routine, non-military supplies—money that normally would not start to flow out until after the new fiscal year begins July 1. Of this sum, up to \$200-million is ticketed for the next 90 days.

• Flexibility—The theory is that by starting these purchases three months earlier than normal, and maintaining them at a forced rate in the July-September quarter, the economy will get

an extra push timed to counter the usual summer slowdown.

Then if the economy has stabilized by the end of calendar 1958, these routine purchases could be held down in the first six months of calendar 1959.

It's a device to give the Administration maximum flexibility. Congress is

expected to go along.

In a sense, the Administration's unemployment compensation proposal has an element of flexibility, too. If the economy stabilizes in line with Administration expectations, the \$500-million or so it wants to make available for augmented jobless relief would not be called for by the states. Thus it is a form of anti-recession spending that will slow down automatically if the need is removed.

 Cautious—Maurice H. Stans, who took over as budget director last month, is a particular advocate of such proposals—because he's afraid the kind of public works being voted by Congress will crank up to a big outflow of money

at the wrong time.

Stans-formerly head of a big Chicago accounting firm—is something new as an Eisenhower budget director, in that he is being called on now to direct a spending rise instead of pushing for more economy. But he considers this a temporary situation only, and is already speaking up for a more cautious spending pace.

 Carry-Over-Like other Administration leaders, Stans is satisfied that we're near the bottom of the recession. But he sees federal spending rising for years as the result of programs now being

pushed through Congress.

Even if the anti-recession spending program were to be halted where it now is, the growth of projects already started would carry the budget to \$80-billion by 1961 "or even before," Stans says.

II. Economic Impact

Both the Administration and the Democratic leaders of Congress are taking direct aim at the most sensitive of the recession indicators—unemployment. But they are placing their bets on entirely different programs.

 Aid for Sore Spots—The Administration hopes to relieve the effects of joblessness by extending unemployment insurance. It is also exploring the idea of offering some kind of emergency unemployment insurance for workers

not now covered.

In addition, it is directing defense contracts into especially hard-hit areas. In Detroit, American Motors got a \$5.6-million contract this week for 250 quarter-ton trucks. Dubrow Developments Co., of Burlington, N. J., will turn out \$1-million worth of communications equipment. On the West Coast, N. P. Van Valkenburg will do \$1-

million worth of work on roads and utilities at Cooke Air Force Base near Lompoc, Calif. Sperry Rand Corp. was awarded \$5.6-million, to be spent at Salt Lake City, for research and development of the Sergeant 75-mile missile.

This flow of contracts—though talling behind earlier hopes—is scheduled for a sharp rise in the next few months. After hitting \$2-billion in December, contracts dropped to \$1.2-billion in January and fell again in February, despite targets of \$1.8-billion for each month. This lag will be made up as soon as the Pentagon can process the necessary paper.

necessary paper.

• Public Works Medicine—The Democratic approach is to depend on a broad expansion of public works to create

new jobs.

Senate Majority Leader Lyndon B. Johnson says Congress is supplying all the money needed to provide 2-million jobs. If he's right, this would cut unemployment back to last fall's level.

Sen. Albert Gore (D-Tenn.), who guided the highway expansion bill through Congress, says that program alone will create 520,000 jobs of a year's duration. He bases this on an increase of \$2.7-billion over what otherwise would have been obligated.

Sen. John Sparkman (D-Ala.) set a similar goal of 500,000 to 600,000 year-long jobs from his housing bill, if housing starts rose by 200,000.

• Skeptics—But a house now requires only about one man-year of labor on the site according to estimates of government housing authorities. So Sparkman's estimates are based on a job-multiplier factor of 1½ to 2 jobs created off the building site, for every job on the site.

This method of estimating jobs provided by construction is a carryover from New Deal days, but it has been abandoned by most construction economists in recent years. Robinson Newcomb and Miles Colean in research for the Committee for Economic Development in 1952 challenged the whole concept of expanding public works as a means of checking recessions.

Most government experts in construction fields, as well as private economists, accept the Newcomb-Colean line today. They would sharply reduce the Democrats' hopes regarding new jobs from public works, dropping the number down closer to a half-million.

 Test Ahead—The Administration has never held the high hopes for public works that Democrats share.

But the Administration, too, may be setting too high hopes on the economic stimulus from the total spending picture. Its conviction that the sinking spell is about over is more a matter of feel and intuition than anything else. The next few weeks will show whether its confidence is justified.

Red Call

This week the Soviet Union pushed the crucial East-West problem of a nuclear stalemate off dead center. In an expected but still dramatic move, Foreign Minister Andrei A. Gromyko (picture) announced a suspension of Soviet nuclear tests.

For several years, the East and West have been locked in a nuclear stalemate, with the H-bomb sometimes looking more like a "common enemy" than a safeguard of peace. Yet none of the Western schemes for arms control, discussed at length with the Soviets, has produced more than a momentary hope that the deadlock might be broken.

Now Moscow-following up its Sputnik lead in satellite developments—has again grabbed the ball from the West and suddenly agreed to halt nuclear tests. Undoubtedly, this will force the U.S. to draft new arms-control proposals for submission to the United

But the Soviet move seems no more likely really to break the nuclear stalemate than the West's earlier steps toward that goal. Moscow's decision is essentially a political thrust at the U.S.—an effort to split the West as the time for a summit conference approaches.

I. Cold War Strategy

From recent Soviet pronouncements, it's clear that Moscow regards an early summit conference as the No. I goal in its cold war strategy. In Moscow's thinking, a summit talk could do more than anything else to relax and divide the West. Through skillful maneuvering, Soviet leaders at the conference could make the West look as if it accepted the status quo in Communist Eastern Europe. Perhaps they could even manipulate the conference to give Moscow a formal voice in Middle East affairs.

• But No Concessions—For Nikita Khrushchev—now Premier as well as Communist Party boss (page 111)—the problem has been to persuade Western leaders to meet him at the summit without making advance concessions that might tie his hands. On the other hand, Pres. Eisenhower, Secy. of State Dulles, and heads of other NATO countries have insisted that Moscow must demonstrate its willingness to reach some concrete agreements at the summit—before they will commit the West to a top-level conference.

Now Khrushchev has put the West on the defensive. He has suspended nuclear tests as evidence that he's ready to negotiate an international agreement on a ban of such tests. There are indications he will revive the Soviet's

For Test Ban Puts West on Spot



RUSSIA'S GROMYKO, backed by bigwigs of the Soviet Presidium, tells Supreme Soviet (the parliament) of decision to suspend nuclear weapon tests. He is foreign minister.

1957 offer of establishing an international inspection system, including posts inside the Soviet Union. Even if these are empty words, the net effect of such a proposal—in view of world public opinion—is to push Western leaders closer to a summit conference.

• Champion of Peace—Of course, the Kremlin has other objectives, too, in halting tests. For one thing, it helps Khrushchev's campaign to create before the world an image of the Soviet Union as the real champion of peace. For another, the test suspension is one more step toward neutralizing the West's nuclear deterrent by making nuclear weapons seem so dangerous to human health—even at the test stage—that they should never be used at all.

On top of this, full climination of tests would indirectly block nations that lack nuclear weapons from developing their own. Moscow says it fears, as much as the West does, that some "irresponsible" nation might touch off a global war.

Most of all, Moscow wants to put new pressure on the U.S. and Britain to halt their own nuclear testing—and to exact a heavy moral and propaganda toll if they do continue tests. With the U.S. scheduled to begin a new series of tests this month and Britain planning its own series, Moscow has put London—and especially Washington—on the spot.

II. Propaganda Charge

Within hours of Gromyko's announcement, the State Dept. branded the test suspension as a phony propaganda maneuver. It pointed out that the Soviet Union has just completed its most intensive series of nuclear tests to date. It argued that there will be no way to check whether or not the Russians actually are suspending tests and stressed that the Russians have left themselves free to resume testing at will.

Almost simultaneously, the U.S., Britain, and France-acting for the NATO powers-proposed a meeting of ambassadors in Moscow this month to soften Soviet pressure for an immediate summit meeting.

 Public Outcry—But popular pressure to halt the nuclear arms race has been gaining strength in Western Europe.

In Britain, the government has held fast to its support for nuclear tests, but a mass movement aimed at forcing unilateral British nuclear disarmament is gaining headway. The British Labor Party officially endorses the suspension of tests.

In West Germany, the Socialist Party is trying to force a national plebiscite on the question of arming German forces with nuclear weapons—in opposition to the Bonn parliament's decision to use them.

 Illegitimate Weapon?—The plain fact is that the position of the U. S. and other NATO governments on the test ban issue is hard to sell. Its premise is that --barring a comprehensive and enforceable arms-control agreement with the Soviet Union—the West must continue to perfect its nuclear deterrent, even at the risk of creating a world health hazard through radioactive contamination.

Washington recognizes that a majority of people perhaps never have fully

accepted the legitimacy of nuclear weapons, even for defense. U.S. officials also realize that technical arguments for continuing tests may seem like legalistic quibbling at best—and that Soviet gestures toward slowing the nuclear arms race, no matter how empty, may have a strong appeal to public opinion.

• Tests as Scheduled—However, Eisenhower and Dulles have decided to take the inevitable propaganda beating rather than be blackmailed into renouncing nuclear tests. Operation Hardtack—the new series of tests—will begin at Eniwetok in the Pacific this month, as scheduled. But Washington hasn't ruled out the possibility of a temporary suspension of tests, once the Hardtack series is over.

In any case, there seems to be solid military reasons for continuing tests in order to:

 Perfect nuclear warheads for intercontinental ballistic missiles under operational conditions.

 Test high-altitude nuclear explosions for use in anti-missile missiles.

· Develop smaller, cleaner nuclear weapons for fighting small-scale wars. • Propaganda Riposte-Washington is considering various moves to counter Moscow's proposal to suspend nuclear tests. These include a U.S. pledge to test only "clean" weapons in the future, an effort to get the U.N. to set up an international inspection system for forcing other nations to test only "clean" weapons, and an attempt to establish an agreement for international registration and observation of all nuclear tests. Prior to this week's Soviet announcement, the Administration had invited world scientists, including Russians, to observe U.S. tests of cleaner

The Administration still insists on linking any test ban—negotiated at a summit conference—both to an adequate inspection system and to suspension of nuclear production. There's no sign that Moscow would accept these conditions. In fact, Moscow may well resume nuclear tests, once the results of its latest series have been digested.

In any case, in the interests of getting a first-step agreement, there's pressure on the Administration at least to modify U. S. finsistence on tying a test ban to a production ban. On Capitol Hill, Sen. Hubert Humphrey is leading a campaign, for an enforceable test ban without any strings.

Yet, even if Washington should eventually agree to a test ban without strings, Moscow can now claim the credit for having taken the initiative.

Starting Gun for a Moon Shoot

McElroy gives go-ahead to both Army and Air Force for a competitive race to get a rocket to the moon—maybe within 12 months. Navy gets a subsidiary role, too.

Last summer the then Secretary of Defense, Charles E. Wilson, insisted he had enough problems here on earth without shooting a rocket to the moon.

This week—six months after the Soviet's Sputnik I began orbiting around the earth—the new Defense Secretary, Neil H. McElroy, with a green light from Pres. Eisenhower, is parceling out funds to two military scientific teams to start putting together two separate rocket systems for moon shoots. Either or both of these might hit the moon within the next 12 months, even though no target date has been officially set.

Present money is only \$8.2-million, but at least \$100-million more will eventually be poured into the project.

In Charge—McElroy gave over-all direction of the "moon shoot" program to the Pentagon's brand-new director of the brand-new Advanced Research Projects Agency—former General Electric Vice-Pres. Roy W. Johnson. He in turn directed the military agencies to get going on their projects—Army and Air Force agencies on the two rocket systems, a Navy agency on one of the instruments to be used.

Within a few months, however, a different agency may be in charge. This week Eisenhower recommended that Congress give control of U.S. space exploration to the National Advisory Committee for Aeronautics—the agency with the longest history in basic aeronautical research for both military and civilian applications. ARPA would continue in charge of military projects, but there's a question whether it would still supervise and finance the moon shoots.

• Competition—Most of the required hardware for the first moon shoot attempts—rocket power plants, air frames, guidance and instrumentation systems—is already at hand. Over the past year, the Pentagon has been deluged with proposals from the Martin Co., General Dynamics' Convair Div., Douglas Aircraft, North American Aviation, and others for moon shoots with existing missile hardware. But the Pentagon waited until the President gave the nod.

In giving the go-ahead to both Air Force and Army units, ARPA has in effect established the kind of competition that has marked the earth satellite program in recent months, with Navy's Vanguard rivaling Army's Jupiter-C Explorer.

The Air Force has already said it could land a package on the moon by

Dec. 31—a package containing a radio transmitter to signal the earth and a spotter charge to mark up the moon's surface so the world can see it.

Army officials are equally optimistic. Some observers give the Army an edge, since its Jupiter-C rockets can be rapidly altered to fit a new purpose.

Orders and Funds—Director Johnson's orders are pretty much in line with what the hardware makers and military rocket scientists have long wanted:

 Gen. John B. Medaris' Army Ballistic Missile Agency at Huntsville, Ala., was told to use modified Jupiter-C rockets for one and possibly two moon shoots and three more Explorer earth satellites. This rocket was originally designed to test nose cones for the Jupiter IRBM; it launched two of the three successful U.S. earth satellites. ABMA was allocated \$5-million to get the new work under way.

• Gen. Bernard Schriever's Air Force Ballistic Missile Div. at Los Angeles got an initial \$3-million for three poon shoots. Its launching vehicle will consist of the Douglas Aircraft-North American Aviation Thor IRBM as the first stage, the Navy Vanguard's Aerojet-General second-stage motor, and a third-stage rocket vet to be selected (most likely a solid-propellant engine). Guidance and control equipment will likely include the Minneapolis-Honeywell and Sperry Rand apparatus developed for Vanguard.

• The Naval Ordnance test station at Invokern, Calif., got a first allocation of \$200,000 to develop a "mechanical ground-scanning device" for either of the moon rockets—to examine the surface of the moon and transmit scientific data back to earth.

The \$8.2-million total will cover moon-shoot operations only to June 30. ARPA's original budget for fiscal 1959, starting July 1, calls for \$340-million in new funds for all its operations. This week's supplemental defense appropriation request adds \$180-million to the sum.

• Shortcut—In handing out direct assignments, ARPA bypassed the established lines of Pentagon authority—the secretaries of the individual services—to speed up action. ARPA officials say such shortcuts are to be used for one-shot, short-range projects with high priority. For longer-term space projects, such as the anti-missile missile, traditional channels will be used.



By a Landslide

Diefenbaker's Conservative Party is entrenched for at least four years of a nationalistic policy in Canada.

This week's sweeping victory of Prime Minister John G. Diefenbaker's Conservative Party turns out to have been the most one-sided in the history of Canada.

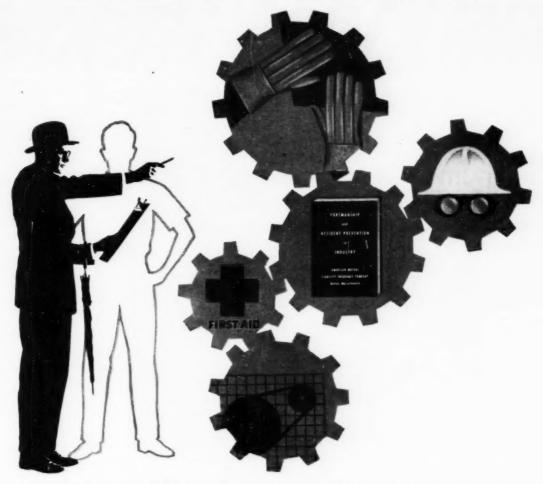
The Conservatives, who barely squeezed past the Liberal Party last summer (BW-Jun.29'57,p48), won an unprecedented 209 seats out of 265 in the House of Commons, leaving only 47 for the Liberals and all but wiping out the splinter parties.

The Liberals' loss of all western Canada was startling, but the Conservatives victory in French-Canadian, anti-British Quebec Province was the sensation of the day. Not since 1887 had the Tories carried the province.

• After Election—Diefenbaker's party is pledged to Canadian nationalism and stronger ties with Britain than with the U.S. But this isn't expected to have much immediate effect on Canadian-U.S. relations. Canada will be wrestling with its public works program and other recession issues. Nothing will be done soon about the idea of diverting 15% of trade from the U.S. to Britain and the Commonwealth.

Long-term, though, things could be different. The Tories will be in power for at least four years and could easily win another four even if their majorities are sharply cut. In the long run, control of U.S. parent companies over their Canadian subsidiaries may be weakened, restrictions imposed on the U.S. \$12-billion investment in Canada, Canadian tariffs raised, and Canadian foreign policy toughened, even to the point of

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refusal to do so.

 Marketing a Man—These were not directly campaign issues. The Conservatives campaigned on a program of public works to ease the recession, in opposition to the Liberals' plan for taxcutting. Essentially, it is Diefenbaker's own personality that carried the party to a result that he himself calls "stupefying."

Canadian electioneering, even by such a world statesman as Lester B. Pearson, the Liberal leader, tends to be dull; Diefenbaker brings flamboyance to the platform.

"This man is the first electronic prime minister in Canada," a newspaper editor says of Diefenbaker's frequent TV speeches. Advertising agencies guided the Conservative campaign, the first time they have played a part in politics in Canada. On their advice, the party name and the word "Tory" were played down in favor of the leader's personality. "Vote for a Diefenbaker government" was the catch phrase that got the results.

Aluminum Hands Steel a Dare

The slash in U.S. aluminum prices—instigated by the Canadian giant, Aluminium, Ltd.—is a direct challenge to steelmakers to follow suit. Odds are they won't.

Almost by accident, the nation's aluminum and steel producers have become enmeshed in a philosophical struggle over pricing. It's a tussle neither group sought and one that could damage both parties—perhaps without yielding either any significant gain.

Ironically, while much of the blame for it has been laid on the Russians and their threats of economic warfare against the United States, the real instigators were the Canadians—specifi-

cally, Aluminium, Ltd.

That's the broad meaning of a 2¢ per lb. price cut on aluminum ingot announced Mar. 28 by the Aluminum Co. of America. Two other major domestic producers—Reynolds Metals and Kaiser Aluminum & Chemical Corp.—matched it within hours. This week, Aluminium, Ltd., did likewise, and thus made specific its Mar. 27 announcement that it would reduce ingot prices "up to as much as \$42 per ton." That announcement triggered the whole thing. The result:

• U.S. producers now sell for 24¢ per lb. the same material they raised from 25¢ to 26¢ last August. That followed the second round of a three-year wage agreement that will add still another 9.4¢ per hour, plus other nonwage costs, to aluminum's labor bill

four months hence.

 Canadian ingot, which had sold for 24.5¢ Canadian in Canada, but 26¢ here-because of a 1.3¢ tariff and a 2% premium for Canadian currency -now sells for 22.5¢ Canadian, or 24¢ here.

• The net effect of it all is that Aluminium, Ltd., which had been absorbing the difference between its Canadian and U.S. prices—about 29/100¢—to meet U.S. competition, now will have to absorb only 25/100¢, because

the exchange premium will be lower on the lower price. That figure will sink to 20/100¢ next summer, when the tariff drops to 1.25¢ per lb.

I. But Will It Sell?

Limited's price-cutting decision rests on this basic—but often distrusted—premise: The cheaper your product, the broader your market. Contributing to it were these factors:

 Limited has almost 150,000 annual tons of ingot capacity idle right now, will have vastly more than that idle next year if sales don't rise ma-

terially.

• Limited had a tough year in 1957 in its best market—the United Kingdom. And it can look for tougher competition in world markets for the future. Aluminum producers everywhere, for years unable to serve their own booming markets, now have capacity to spare.

 As do its U.S. competitors, Limited figures that now is the time to entrench itself in a series of vast markets—such mass production industries as autos, containers, construction,

and transport.

 And finally, costwise, Limited should be able to withstand the revenue losses of a price cut better than its free

world competitors.

 No Race With Russia—The idea that Limited was forced into price cutting by Russian competition in the United Kingdom doesn't stand up, even though all parties agree it was a factor. What happened was this:

In the U. K., where Limited has longterm contracts obligating it to supply a vast tonnage of aluminum yearly, the price had been the U. S. equivalent of 24.63¢ per lb. Russia has been offering aluminum there for the equivalent of 22.5¢. Limited people say the Russians have promised to match cut for cut with anyone who's spoiling for a price war. To the extent they believe that threat, they'd have been silly to base their price action solely—or even primarily—on Russian competition in the U.K. Particularly, they'd have been under no compulsion to extend their promotional pricing to other world markets solely because the Russians were cutting the price in the U.K.

• Costly Promotion—U.S. producers aren't very happy at all with Limited's decision. In principle they think promotional pricing is fine if you can afford it. Mostly, though, they simply don't believe that today's costs sensibly accommodate a 7.7% price cut, and they tend to shudder when they ponder the Aug. I boost in employment costs that almost surely will exceed 15¢.

Steelmen tend to become aggressively defensive when it's suggested that aluminum's price cut will complicate the predictable steel price increase next July 1, following the third round of its three-year labor agreement—a round that steelmen commonly agree stands to cost them 20¢ per hour or more.

Those who produce stainless steel probably are most concerned. For it's there that steel and aluminum are most competitive in cost. Stainless and aluminum are competing vigorously in several basic mass markets where relative costs tend to be figured very tightly and to weigh heavily.

II. Aluminum vs. Steel

As a result, you hear such speculation as this among steelmakers:

• To make a steel price increase palatable following an aluminum price cut, it might be strategic to cut the relatively more profitable stainless prices while raising carbon steel rates, where the volume is infinitely greater.

 Or, to accommodate aluminum's competitive improvement, leave stainless prices unchanged next July, and recover the costs on other prices.

Such talk as this, even though it's wholly speculative, indicates that steel can't simply shrug off aluminum's price cut, much as it might wish to. And such stratagems must curdle the blood of specialty steel producers, whose product mix—and profits—are heavily concentrated in stainless.

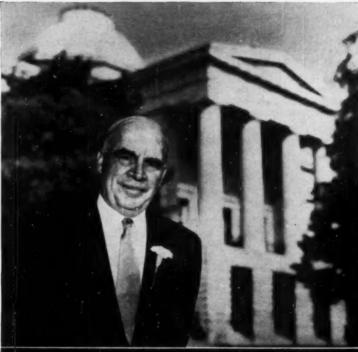
Even more firmly, perhaps, than their aluminum competitors, steelmakers believe a price cut won't sell more steel.

Even more firmly than aluminum, they have resisted price cutting since the operating rate began to plummet late last fall.

Steel has maintained its price structure so rigidly that the betting remains odds-on, today, that its prices will go up July 1.

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NORTH CAROLINA

If you are seeking prompt and confidential plant location information, Governor Hodges invites you to get in touch with the Department of Conservation and Development in Raleigh.

In Business

Plane Contractors Say Navy Asks Them To Go a Little Slow in Presenting Bills

Airplane contractors this week confirmed that the Navy is asking them "voluntarily" to hold off from billing the government until after July 1—the beginning of the next fiscal year. Despite flat statements by contractors, the Navy still says it isn't so.

Specifically, the Navy is asking the airplane companies—missile contracts are not affected—not to submit bills unless they absolutely need the money, or at least to ask only for partial payment.

The Navy request, first made two or three weeks ago, is aimed primarily at new orders being placed, but in some cases is said to include work already in progress.

Such big producers as Lockheed and McDonnell have reportedly gotten the word already. It is also reported that Navy procurement officers have been forbidden to write contracts of more than \$100,000 without an O. K. from the Assistant Secretary level.

Foam Rubber Antitrust Case Settled on Day It Is Filed

The Justice Dept. this week settled an antitrust case against two rubber companies on the same day it was filed. B. F. Goodrich Co. and Dayton Rubber Co. signed a consent decree ending what the antitrusters called a conspiracy to allocate world markets and restrain new competition in the manufacture and sale of chemical process sponge rubber.

Goodrich and Dayton had been invited to negotiate in advance. The suit named as co-conspirators, two British companies and Josef Anton Talalay, inventor of a freezing process for making foam rubber. Under the consent decree, certain basic patents must be licensed to any applicants on terms as favorable as those now in effect.

Slogans, Buttons, and Pin Money Are Tried as Recession Nostrums

The ogre of recession is being dealt some shrewd blows around the nation.

The city of Cleveland (Tenn., not Ohio) sought confidence in the alphabet, plastering itself with an A-B-C slogan, which stands for "A Booming Cleveland." Said Mayor J. F. Corn, "We don't dispute that there's a recession around us, it's just that we don't aim to join it."

The other, somewhat larger Cleveland, is setting aside the month of May for an all-out communitywide sales drive. Every gimmick from street rallies to school contests is being considered; an advertising agency has even suggested the election of a "Miss Prosperity."

A cheerful note was struck in St. Louis, where the Phelan-Faust Paint Mfg. Co. has its salesmen endowing prospects with buttons that clarion, "Business Is Good." Customer demand is lively, with 8,000 buttons already distributed and another 4,000 ready to go.

In Hampton, Iowa (pop. 4,500), three merchants decided that more frivolously circulating money was the need. Each employee of the trio was given \$25 on the condition that he spend it in Hampton within a week and on "non-essential goods." The move has spread. So far happy employees have been able to squander \$1,100 of the bosses' money.

The huge Pennsylvania RR has tried a different approach, chopping 10% of the salary of each employee who earns more than \$10,000 a year. One purpose, said a spokesman, is to bolster morale of the under-\$10,000 workers.

Ex-Aides Meet to Roast Kaiser— He Shows Up, Buys Them a Drink

The Kaiser Alumni Assn. Unlimited—mostly people who had been pushed, fallen, or jumped from the retrenching Kaiser radio and TV enterprises in Hawaii—had an unexpected guest at a meeting called to growl at the ex-boss. Henry J. Kaiser himself showed up, with Mrs. Kaiser, on the strength of a membership card sent to him as a gag.

The astounded emcee greeted Kaiser as "the man who made this possible," then handed him the microphone. The industrialist soothed the gathering with a few homilies, then ordered a drink for all hands.

KAAU riposted by giving Kaiser a door prize—a piece of aluminum made by a competitor.

Business Briefs

Offshore drilling for natural gas will make its debut on the U.S. side of Lake Erie soon when New York State Natural Gas Corp., of Pittsburgh, starts exploration of known fields. On the Canadian side of the lake, more than 75 wells have been drilled since 1913.

The Office of Defense Mobilization this week stamped "official" on the coffin of the old rules for rapid tax amortization, when it formally closed the expansion goals for production of liquid oxygen and nitrogen and a few other items. In practice, the old rules died last August when Congress gave the coup de grace to the moribund program, at the urging of Sen. Harry Byrd (D-Va.). New rules went into effect last month (BW—Mar.8'58,p36).

Lt. Gen. James M. Gavin, wartime parachute commander and more recently head of research activities, retired from the Army this week after a flareup over policy. On June 1, he will join Arthur D. Little, Inc., research and management consultant, as a vice-president and director.



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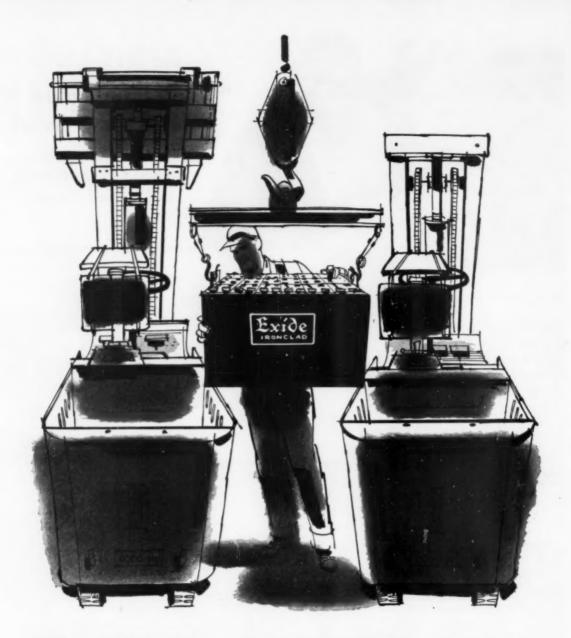
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WASHINGTON OUTLOOK

WASHINGTON BUREAU APR. 5, 1958



You will get some major Washington decisions in the next 30 days—decisions on what additional recession remedies will be tried.

Congressmen now are at home, spending an Easter vacation with voters who keep them in office. What they hear about unemployment, loss of overtime wages, and sliding business profits will be an influence in both the parties for many months to come—will help shape legislation.

At the White House, a sort of reappraisal of what has been done up to now is under way—a reappraisal of the spending projects.

Now is a good time for a fresh look at the budget.

Start with January, when Pres. Eisenhower last reported income and outgo prospects for this year and made his estimates for fiscal 1959. They are completely out of kilter now, but a restatement of them helps with perspective.

Spending for this year, fiscal 1958, which ends June 30, was placed at \$72.8-billion. Spending for fiscal 1959, which starts July 1, was figured at \$74-billion—a small deficit this year, small surplus next. Then came the anti-recession rises.

Now look ahead, and you see the trend.

Spending this quarter will hit an annual rate of some \$78.4-billion. That's a sharp rise, when you remember that spending in the quarter just closed was at an annual rate of only \$73.4-billion.

Spending for the last quarter is projected at an annual rate of over \$80-billion—a spending rate rise of nearly \$8-billion in 12 months.

That explains Eisenhower's go-slow signal this week. He has been fully briefed on the spending rises that have been put in the mill since last December—the so-called anti-recession programs (page 30).

You saw results in Congress. Senate GOP leaders, who have been going along with the Democratic rush to O.K. new spending projects on a "crash" basis, suddenly called a halt. It was Republican Leader Knowland who won a vote to delay action on the Fulbright bill until after the recess. That's the bill providing \$1-billion in loans to local governments for public works. Knowland took his cue from Eisenhower.

Eisenhower fears inflation. Some of his advisers feel he is much more concerned with this problem than with the current recession. They picture the President as pretty well convinced that enough has been done to stop the decline and put the "surplus" unemployed (figured at 2.5-million) back to work if the nation will sweat out a few more rough months.

He gets support from his business friends—businessmen who play golf or bridge with him or merely drop in for a visit. That's one reason the decisive time, once tagged as March, has turned to April and may yet turn into May. You have noted that the early tax-cut advocates within the Administration, Vice-Pres. Nixon and Labor Secy. Mitchell, now talk closer to the White House lines. Their friends say they haven't changed their minds, but have taken White House advice to pull back—wait and see.

Tax cut sentiment in Congress will show a rise when congressmen return from the Easter recess Apr. 14.

WASHINGTON OUTLOOK (Continued)

WASHINGTON BUREAU APR. 5, 1958 Workingmen want relief. They did this time last year, when the issue in Congress was economy, not hard times. They will want it even more now. A tax cut would help supplement any wage hikes won this year.

Many businessmen want relief, too. Profits are hard hit in the fields where production has fallen from year-ago levels.

But there will be pressure against cuts, too. One congressman puts it this way: "I know a majority of my constituents want their taxes lowered. They think in terms of the pinch today. But most of my most active backers will be on the other side. These are men who think ahead. They already are upset by the spending rise and the prospect of big deficits. They don't want another inflation spiral, starting a year from now."

Eisenhower will get both sides. In fact, he already has. It seems safe to report, with no conclusive proof, that the weight of this advice is against any early tax cut. The Cabinet, still heavy with businessmen, leans that way. Cabinet members maintain contact with old associates.

Here's a story told by a key Presidential assistant: In the past week, he has talked with former business contacts in such centers as Cleveland and Chicago. He found much pessimism about the short pull—the next several months. But he says he found considerable worry, too. He attaches much significance to this worry. He said that more than one of the businessmen he contacted expressed a fear that they might play it too close too long, and in this way let the competition get the jump. The point made is simple. Too long a delay in plant and equipment spending or in building inventory may prove costly later. Nearly everyone expects higher prices on recovery.

There's strong opposition to longer unemployment pay as proposed by Eisenhower. While this was proposed as an emergency measure, Congress decided to let it go over until after Easter. Here's the rub: States would have to repay the federal government any funds they accepted to extend compensation periods. Some states could simply repay out of general revenues. Many would have to hike unemployment payroll taxes, and business is dead set against this. Also, there's the fear on the part of many congressmen that once this "bonus" system gets started, it will be made permanent, and switch from a loan to a direct handout basis.

You will hear talk about direct federal relief—federal grants to states to make unemployment payments to the unemployed not covered by insurance. Of the 5-million-plus unemployed, some 2-million are not covered by unemployment compensation. Washington right now is feeling out states on a relief program that would require the states to match federal funds dollar for dollar. This may be tried, but only if the recession runs beyond the end of this year.

This is Eisenhower's toughest period. The recession is just one problem. Russia is pushing harder and harder in the propaganda field. An example is its announcement that bomb testing will be halted. Even if it is a phony deal, it is embarrassing to the U.S. Some hard going is ahead in Congress—on tariff cutting and foreign aid. Democratic candidates for the Presidency in 1960 have been hard to spot. But as GOP troubles mount, would-be candidates show interest. Note the activities in behalf of Adlai Stevenson, a two-time loser, and Sen. Stuart Symington, who will have Truman backing.



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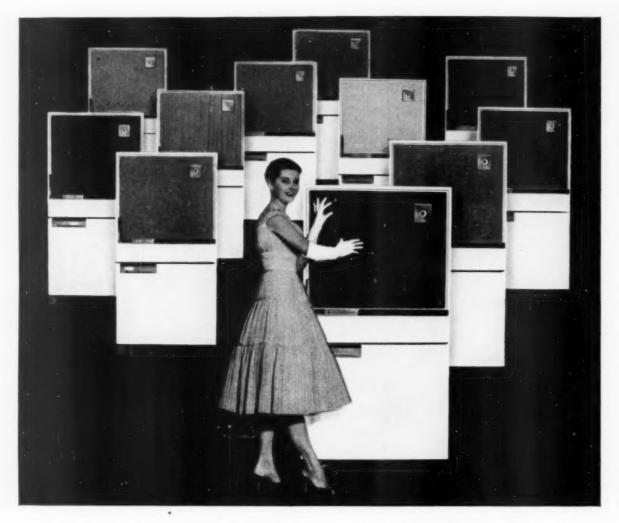
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Buying on Hamburger Budgets

To stretch their pennies, recession consumers are downgrading purchases of essentials such as food—but not of other items.

In obviously growing numbers, U. S. shoppers are reacting to the recession by changing their habits. On essentials, they are settling for less than the best–like the housewives at the egg counter at right. On other purchases, they are simply delaying. But when they do buy, they want top quality—at a price.

With some deviations, such is the pattern BUSINESS WEEK reporters found this week in talks with all types of merchants in key cities around the country. The pattern emerges from two points the retailers consistently made:

 For the first time in years, food stores are readjusting their buying policies to meet the demand for lowergrade items, particularly meat.

 Department stores and specialty shops, on the other hand, find little evidence that consumers want to downgrade the quality of their purchases. But they are buying less—and big-ticket goods are the hardest hit.

I. Scrimping on Food

Since families have to eat, supermarkets probably worry less than any other business about the length or depth of a recession. But they readily admit to feeling the squeeze on the family budget right now. And BUSINESS WEEK'S reporters collected some impressive evidence.

In Atlanta, for instance, Pres. Simon Moltack of the city's Big Apple chain of supermarkets commented: "Any loss leader in the meat department goes like wildfire—like the pork chop special we've been running." He figures sales of better grades of meat are down 30%, sales of hamburger up 25%. Ordinarily, he buys two cars of U.S. choice grade meat each week, along with 10 U.S. prime carcasses; now the order is for a carload of choice a week and prime on a spot basis.

The same story was told by Colonial Stores, a big regional chain: "We're using less than half the normal amount of prime grades, nearly twice the normal supply of good. Even choice grades are down—as much as 20%."

In Milwaukee, you hear similar tales. The general manager of a large supermarket chain said: "Emphatically, yes—the customer is definitely downgrading her food purchases and has become



more conscious of price than ever."
• Rib-Sticking Brands—This trend isn't necessarily confined to meat, either. The regional vice-president of a major U.S. chain reported in Cleveland that in canned food it's the "C" grades that are selling, not the choice goods that used to lead the parade. His stores are maintaining volume—but only by promoting what he calls "the stick-to-theribs" brands. The chain has had two big canned goods sales so far this year; usually there would have been only one. And it's selling more of the cheaper Pennsylvania potatoes than ever while reducing stocks of the more expensive Idahos.

What's more, this executive reports, downgrading is pretty obvious all the way from the low- and middle-income neighborhoods out to the better and high-class suburbs.

Pittsburgh food merchants, who feel the effects of unemployment in steel, also agree shoppers are budget-conscious. Thorofare Markets, Inc., with about 58 stores in a tri-state area, has noticed that sales of "items you fall back on in creating meals have been stepping up substantially." Another chain observed: "If the downgrading continues, there will be a marked difference in business in another three months."

• More Burgers—At ACF-Wrigley food stores, a Detroit-based chain, hamburger sales have increased 15% in the last four months. A spokesman for the chain doesn't think buying shifts among the filet mignon trade are responsible "because these customers will be the last ones to feel the pinch." Rather, he says, "it comes from the rib roast and leg-of-lamb section."

The nation's No. 3 food chain,

Kroger Co. (annual sales: some \$1.5-billion), takes a broad view of the trend. Says Carl J. Reith, vice-president in charge of several divisions, at Cincinnati headquarters: "We are slowly changing our merchandising techniques in recognition of a definite trend toward the bargain side. This isn't hard—we keep our buyers alerted on a week-to-week basis and try to stay abreast of these shifts."

• Exceptions—A minority in the food business insists the consumer isn't downgrading. "If anything," said a Chicago food company executive, "people are buying more and better food just because they're not going out to spend their money in restaurants."

In San Francisco, the second biggest U. S. supermarket chain, Safeway, could find no evidence of changes in the quality of meat and groceries moving from shelves to shopping carts. However, says a Safeway spokesman, maybe the chain would be noticing downgrading if its stores were located in more heavy industrial areas.

Three big Philadelphia chains also can't see much downgrading—and attribute whatever there is to shortages of fresh fruits and vegetables caused by bad weather. In Los Angeles, an officer of a local food chain thinks the retailers may be inducing downgrading themselves: "We have been featuring lower-priced lines of food because we thought that's what the customer would want—and the customers have bought them. But now we wonder if they are only buying them because we talked them into it."

The Chicago meat packers can't tell whether there's been a slump in demand for higher-priced cuts. One reason is the continuous shortage of beef

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for the last several months. One grocer commented that "if it hadn't been for the recession, beef would be rationed."

Curiously—but still explicably—downgrading hasn't shown up much at all in department and specialty stores, except in lagging sales in many parts of the country. Apparently consumers are cutting down on purchases, instead of willingly buying cheaper merchandise.

II. Dawdling Elsewhere

Merchants have been expecting to feel the family budget pinch, just as the food stores have. Witness the experience of a Los Angeles home furnishings chain: "We have been promoting lower-price lines and lesser quality because we thought we should. But now we think we made a mistake and are considering going in the other direction."

The president of a major shopping center in the same city looks for downgrading eventually, but so far there has been little sign of it. Still, partly because credit collections are a little slow, his store is concentrating its buying on the more popular-priced lines, on the theory that the purchasing power is in this range.

• Trading Down in Stores—It may be that customers are just switching stores, instead of switching to lower-quality merchandise. That's the explanation given by Danburg's, a nine-store Houston chain of inexpensive suburban department stores, whose sales have shown consistent gains since November. In the week ending Mar. 22, Houston department store sales generally were down 5%—but Danburg's

were up 11%. The comptroller of the chain thinks it is winning customers who normally flock to higher-class stores. As a result, Danburg's has increased inventory to an all-time high.

Other Houston stores admit customers are harder to sell-but insist they aren't downgrading. One exclusive outlet, Sakowitz Bros., was worried in January and February: "Customers who could and would buy a \$195 dress bought \$39.50 standards—they wanted to wait and see if the chemise was here to stay. Well, they started buying four or five weeks ago."

• Prosperity Index—Among the big nationwide department store chains, there has been no real evidence of downgrading, at least according to a spokesman for Federated Department Stores' Cincinnati unit. Says this retailer: "The buying of the public isn't anywhere like the pattern of the 'true depression' or recession years. This recession hasn't yet put heavy enough pressure upon people where they start to make a compromise toward cheaper goods."

This matches the opinion heard from a leading department store in South Bend, Ind., a severe unemployment area. The owner pointed out: "We use our basement as a business barometer; a pickup in sales downstairs indicates a general business drop—and it works better than checking credit sales. But since the beginning of the year, no basement sales pickup has materialized, although store sales volume over-all dropped 20%."

On the other hand, in hard-hit Detroit, the sales manager of a national chain says consumers are definitely on



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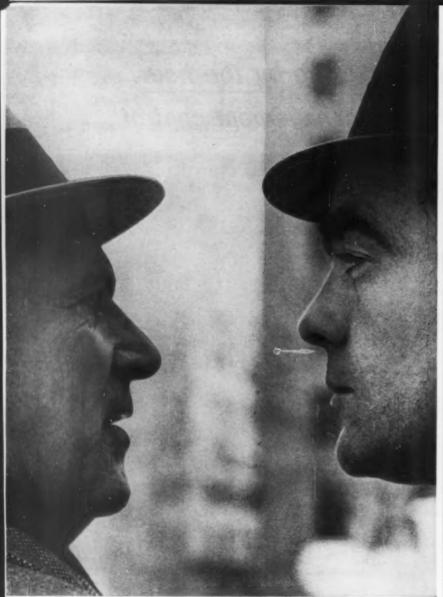
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". . . people are shopping for bargains, but they want quality, too . . ."

DOWNGRADING starts on p. 47

the prowl for goods with smaller price tags, particularly in clothing and hardware. Luxuries such as sporting goods have suffered: "People just look and go away—and there aren't enough people even looking."

• Quality, Too—Only one store, Polk Bros. in Chicago, could detect downgrading in appliances. That was in home laundry equipment, where the most expensive units are sagging in sales and medium-priced models are picking up proportionately.

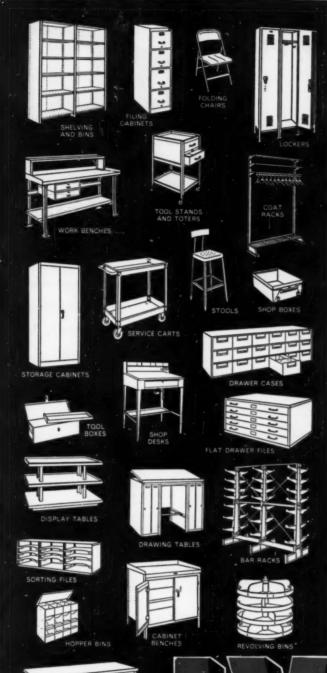
Stores admit people are shopping for bargains—but they want quality, too. Recently, a Pittsburgh store advertised an item in three price ranges, and it sold more of the highest-priced models (at about \$11) than of the other two. "Of course," says the store president, "it offered more features. Apparently customers are still willing to pay to get them."

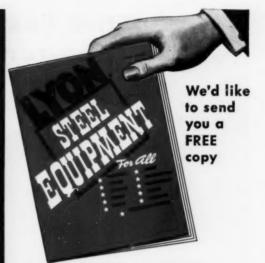
One thoughtful manufacturer explained the lack of downgrading this way: Usually, the buyers of the least expensive consumer products have the lowest incomes, and they are hurt first by any recession. So they are dropping clear out of the market. Thus, in percentage of total sales, higher-priced lines take a big jump. Besides, he says, consumers are value-conscious and realize better-grade goods are more economical in the long run—if the price is right.

• The Best Still Sells—Luxury shops are pretty unanimous that downgrading hasn't hurt them—yet. In San Francisco, though, a fairly high-class store says its popular-priced lines in home furnishings and apparel are very active. Another reports fur business has probably suffered.

However, a swanky Milwaukee men's store says it's doing fine: "We're not cocky—we could get hit, but we're seling summer suits at \$235, a lot to pay for a summer suit. But there is no customer resistance." And in Atlanta, where so much downgrading in food buying is evident, a leading appliance store says customers seem to prefer a super-de luxe washing machine to a standard washer-dryer combination at the same price: "They want the one with all the gadgets."

The best comment on the consumer's behavior came from a Houston retailer, who says no one is downgrading in his chain of clothing stores. "What's happening," he says, "is that Poppa is apparently asking Momma, 'Is this purchase absolutely necessary?'" END





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In Marketing

Stereo Disks, Recorded on Two Channels, Play on Special or Regular Equipment

Stereophonic records and record-playing equipment are shaping up as the significant news in the phonograph industry. Last week, at the Institute of Radio Engineers meeting in New York, CBS Labs division of Columbia Broadcasting System, Inc., unveiled a new "compatible" stereo phonograph record that plays either on special equipment for the stereo sound or on conventional equipment.

CBS Labs achieves this by recording music on two different channels, one recorded horizontally into the record groove, the other vertically. An ordinary needle and cartridge will pick up only the horizontal signal as with a regular record. But a stereo needle and cartridge picks up both and reproduces them through two separate amplifying and speaker systems. The result is to

give the music greater depth and realism.

Stereo sound is a major development of the high fidelity approach to music reproduction that is enjoying a boom (BW-Apr.20'57,p83). Until recently, stereo sound was available only on magnetic tape. Then last month, Audio Fidelity, Inc., New York record company, put several stereo disks on the market, and reports lively sales. CBS Labs doesn't know when its record will be available commercially, but other record companies are reportedly ready to jump into stereo record production.

The big industry problem is to develop a compatible record that maintains high-fidelity quality whichever way it is played. This is to attract consumers who aren't yet ready to invest in stereo equipment, who are potential customers for the new records. Some industry spokesmen feel that the CBS record does not achieve full com-

patibility.

In any event, stereo sound offers a big potential for manufacturers and retailers. Stereo records could lead to gradual replacement of conventional records, and stereo nearly doubles the equipment needed for ordinary hi-fi.

ParcelAir's New Service Is Compromise Between Air and Surface Shipping

ParcelAir, a division of American Shippers, Inc., air freight forwarders of Los Angeles, offers a new shipping service to businessmen. The service began this week in New York, Chicago, Boston, and Los Angeles. Next week San Francisco comes in, and other cities will follow.

Essentially, it's a compromise between air and surface shipping—at rates comparable with surface rates. Parcel-Air undertakes to deliver small packages to any town in the U.S. in one to three days' time, door to door.

A 20-lb. package shipped by air express from Los

Angeles to New York costs \$17.08, according to Parcel-Air, including \$50 insurance. By air freight, the package would cost \$19.70; by air parcel post, \$16.20. ParcelAir costs \$4.90—better than the \$5.42 the shipment would cost by rail express, and not too much higher than the \$3.95 of straight parcel post. ParcelAir will take packages up to 40 lb.

Customers buy special ParcelAir stamps (from American Shippers' office or salesmen) at a predetermined rate list. A single shipper's manifest, in duplicate, is the only record required. It will accommodate up to 20 shipments. The ParcelAir pickup man takes the first

copy; the shipper keeps the duplicate.

Packages will be consolidated at bulk distribution points, then forwarded by American Shippers' own air freight system or turned over to the U.S. parcel post. In the second case, ParcelAir puts on the postage stamps.

Dallas Raises Bid for Furniture Center With an \$18-Million Trade Show Mart

While Chicago is still battling to establish its place as the one hub for home furnishings wholesaling (BW-Jan.12'57,p112), marts keep growing.

Dallas, already proud of its new Home Furnishings Mart, will soon start digging on a new \$18-million Trade

Mart "for every item used in the home."

The project is fathered by Trammell Crow, Dallas real estate developer. He opened the Dallas Decorative Center for fine furniture and decorative accessories in 1955, and the Home Furnishings Mart last July. The new mart aims to put Dallas in the same class as Chicago and New York as a trade show center.

The four-story building will have 1,500 showrooms; one floor will go to furniture exhibitors; others will house gifts, lamps, china, appliances, housewares, floor coverings, drapery fabrics, and the like.

National Bureau Surveys Consumers For Signs of Pickup in Buying

The National Bureau of Economic Research hopes to have preliminary results of a consumer attitude and buying plan study by the end of April. In many ways, the study will supplement data from the University of Michigan Survey Research Center. But it is being undertaken specifically at this time "to find out whether household durable goods buying is likely to provide some stimulus to the economy."

Questionnaires have been mailed to 35,000 membersubscribers of Consumers Union of the U.S. who have participated since 1946 in similar but less elaborate studies. Out of this decade of data on buying intentions, the bureau came up with an analysis that convinces it that the method is valid as a predictor of consumer spending habits.

The bureau admits that the sample is a biased one, since members of the Consumers Union are probably not typical. But this is a constant bias, says the bureau,

that can be corrected.



EXECUTIVE COMMITTEE of Cleveland Development Foundation meets. (Seated, left to right) executive director Upshur Evans, E. L. Lindseth, president of CEI, J. A. Greene, chairman

of Ohio Bell Telephone, T. F. Patton, president of Republic Steel, J. K. Thompson, chairman of Union Commerce Bank. Standing, C. E. Spahr, president of Sohio, C. L. Smith, C-of-C president.

How Business Helps Clear Slums

In Cleveland, a foundation of industrialists helps grease the slow turning wheels for Title 1 housing developments.

Governmental units of all sorts and sizes have been marching forth for years to level the crumby citadels of the city slums.

At the lowest income levels, they have achieved a measure of success with federally subsidized or city sponsored projects. But there is a next level upthe so-called Title 1 projects. In these, government gives a nudge to private builders to provide housing for solid workers, mostly in the less skilled groups, who are ineligible for the subsidized shelter. From the attack on this level, the forces of urban refurbishment have mostly marched right back again. Or marched as well as they could with all that red tape around their legs. · Influx of Workers-In Cleveland, though, some of the big industries have brought in a new factor-a factor that has gotten real action on Title I housing, which at once wipes out the most dismal slums, and provides in their stead decent shelter for the growing influx of new workers, many of them Negroes.

The new factor is the Cleveland Development Foundation, a group made up of some of the city's top industrialists. The foundation's tools: enterprise, ingenuity, and a \$2-million fund that serves to prise both builders and government into action.

So far, the foundation has played a very large part in getting Cleveland 1,202 Title 1 apartments, renting from \$17.50 to \$21.50 per room. That can mean, for example, a two-bedroom apartment for \$77.50 per month.

I. A Spreading Cancer

To understand the hows and why of the foundation's work, you need a quick look at the whole slum problem.

Ever since the war, new housing has been shooting up in the suburbs, usually on raw tracts of land. Razing of the old slums has moved much more slowly; and the slums have crept out into still larger areas with the growth of population and the glacial shiftings about of minorities.

No one, except perhaps a tenement landlord, can find a slum desirable. Even affluent people who may never see or smell a slum feel their blight, in the disproportionate share of the tax dollar necessary to cope with the vice, crime, and just sheer misery that



TEAMED UP FOR PROGRESS. James M. Lister, City Hall's No. 1 man on slum clearance, works closely and efficiently with Upshur Evans, who handles foundation's end.

flourish weedily in the dreary hovels.

• Incentive—Unfortunately, the redevelopment of slums offers no profit incentive to private capital on its own. And private business has neither the financial nor legal muscles needed to acquire the slum lands, which frequently lies valuably close to the commercial center of the cities.

• Housing Act—Only government can do the job. That's why, in 1949, Congress passed the Housing Act that brought Title 1 into being. Among other things, the law makes it possible for federal and municipal authorities to share the costs of condemning, clearing, and tidying up slum land for subsequent sale of private builders at a reasonable figure—using condemnation power and taking a loss, if necessary, on resale of the land.

The law as now drawn goes several steps further. To lure the builder into buying and developing a cleared tract, the Federal Housing Administration will guarantee loans covering 90% of the cost of the project—and in some cases the builder can cut his personal participation still lower. In any case, in three years he has his money back and eventually he owns the whole centrally located project, at a fine capital gain.

This sounds like a very juicy deal, but in practice only a few very large

builders, and a smidgen smattering of small ones, have taken it up (BW–Feb.22'58,p80).

The builders are frightened off by several considerations. For one thing, they don't want to tie up even a small piece of capital while they haggle lengthily over details with assorted government units. Also, they don't relish any replay of the Congressional hearings into earlier windfalls on FHA-insured rental housing. They fear that there will be a poor market for apartments in an area already cursed with a bad name. Sometimes, they just don't know enough or care enough about Title 1 to work out a deal.

II. Cleveland's Reaction

In Cleveland, the usual difficulties have been snagging slum progress ever since 1949, when the Planning Commission picked some slum areas for redevelopment and the citizens hopefully voted a \$7-million bond issue to finance the work. Civic enthusiasm was so high that two mayors—Anthony J. Celebrezze, now in office, and his predecessor, Thomas A. Burke—won elections largely on promises to redevelop slum areas.

Doing something was a different matter. As in most cities, the core of the problem was that slums could not



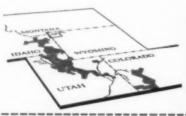
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A Growing Company in a Growing West



be cleared until other shelter was found for the people already living in them. But there was no land that could be acquired to build the relocation housing.

· Pittsburgh Example-While Cleveland city fathers plodded through this bog of frustration, the city's business leaders began to get interested, under the inspiration of Pittsburgh's glittering office building development on blighted land (BW-Apr.2'55,p90). Many executives, driving to their homes in suburban Shaker Heights, got a clear view of squalid slums in which many of their own unskilled and semi-skilled workers lived.

Ultimately, such men as Thomas F. Patton, now president of Republic Steel, came to the conclusion that slum clearance would be good business as well as a good deed. Expanding industry had attracted waves of migrant workers from the South, predominantly Negroes; worker efficiency suffered as the dingy old slums cracked at the seams under the population pressure and spilled over to drag down adjacent areas. • First Gropings-In 1954, Patton and a few others got the idea of a nonprofit corporation to work with city hall. As it evolved, Patton's idea was shaped in sessions with Elmer L. Lindseth, president of Cleveland Electric Illuminating Co.; John A. Greene, chairman of Ohio Bell Telephone; A. A. Stambaugh, then

of Commerce. In June, at a luncheon for 50 leaders, their proposals were laid on the line. Certain basic principles were adopted:

chairman of Standard Oil (Ohio); John

C. Virden, then chairman of the Fed-

eral Reserve Bank of Cleveland and now president of Eaton Mfg. Co.; contractor

Albert M. Higley, and Curtis Lee

Smith, paid president of the Chamber

· Representation from the business community was to be as broad as possible, straddling the uptown-downtown rivalries that were so strong that the Chamber of Commerce had had to move its headquarters four times up and down Euclid Avenue.

 Membership was to be limited to 99, since one more would put the group into the territory of the Securities &

Exchange Commission.

 Housing would be the first order of business, despite the lure of Pittsburgh's office building successes.

· The foundation would be organized on a tax-exempt basis, with donations to it deductible from the income tax.

· To protect the tax-exempt status and get maximum leverage from available funds, the foundation would not itself build or operate any housing. Its role would be to advance "trigger money" to builders.

· Funds, or at least the first \$2million, would be raised by (1) \$500

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membership fees; (2) 10-year development notes bearing 4% interest, if earned; and (3) outright gifts.

To get its members, the foundation solicited the top 99 corporate contributors to the Community Fund; 86 of them accepted. The staff was tailored to a modest \$60,000 annual budget, plus outside consultants. Sohio's Stambaugh lent his assistant, Upshur Evans, as executive director; Evans is still on the foundation job.

III. Foundation at Work

In its nearly four years of existence, the foundation has done many things to stir up federal and local action, but its biggest contribution has been the judicious use of its money. Mostly, the cash lever has been applied this way:

The FHA allows a builder on a standard 90% mortgage to split his own equity 7-3 between notes and cash. So the foundation lends the builder the money he needs for the notes, which cover 7% of the whole cost of the project. The loan is on a 20-year basis, with 4% interest to be paid only if the builder earns it. In the case of one builder, who failed to get an FHA mortgage on one project and then got huffy and didn't ask for one on a second project, the foundation lent him 14% of his cost.

The 7%-of-cost loans work two ways. Frequently, it persuades a reluctant builder to go ahead, since on, say, a \$1-million project, he does not have to tie up \$70,000 of his own money. For the foundation, it meant that its \$70,000 could get a lot more housing than if it had tried to build on its own book

• Aiding the City—In one project, Garden Valley, the foundation lent additional money to the city to get the project going. Garden Valley was originally called Kingsbury Run, a noisome area best known as the dumping ground of the mysterious "torso killer" who left a dozen victims there in the late 1930s.

The city already owned six acres there, not enough for a project. Republic Steel has 19.5 acres that it was holding for sale to industrial customers—Republic had gotten \$15,500 an acre for nearby, similar land. In response to the city's plight, Republic agreed to sell the 19.5 acres for \$11,500 each—its own out-of-pocket costs for purchasing the land and clearing it. But the city had to wait till it could borrow the money from the Urban Renewal Administration.

At this point, the foundation realized that if Garden Valley could be speeded up, it would provide relocation housing without displacing anyone, and so would set in motion a whole chain of other projects. So it lent the city



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banker to the paper mill industry

Eight years ago a man came to Ray Matson requesting The First National Bank's help. He wanted to lease and operate a small paper mill, but needed financial help to supplement his own capital.

The man knew Ray Matson as a Vice President of our Division D—which serves the paper, printing and publishing industry.

The man also knew him as a long-time friend and banker who could talk understandingly about paper production, equipment and processing.

The mill that the man proposed leasing (with an option to buy at a price established then) had been idle for some time. But Ray Matson knew his customer's excellent managerial capacity and broad knowledge of the field. He granted the loan, advancing sufficient funds to help purchase the necessary new equipment.

Since then Mr. Matson's Division has had many other occasions to offer further assistance and the mill has shown consistent profits,

Some time ago, the man came to Mr. Matson about exercising his option to buy the mill and for help in purchasing additional equipment. In both instances, Mr. Matson agreed to the bank's help and today Mr. Matson's customer owns his own mill worth many times the 1950 value.

After 26 years' experience Mr. Matson could tell you of many such instances where The First National played an important role in the progress of other companies.

Remember—paper or paints—it doesn't matter what your business is, one of our specialized Divisions has the officers who talk your business language. If you have a financial problem, come in and talk it over.

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hydraulic pumps, enabling the operator to extend or retract width as much as six feet; drive forward or reverse; oscillate, lift and lower his finishing screeds; swing rear screed when diagonal setting is needed; operate tamper attachment, or raise and lower entire machine on its transportation wheels—all at the touch of a lever. Slab width on this job flared from 12 feet to 18 feet approaching the intersection. But the self-widening feature of the Model JX permitted continuous width adjustment, without stopping and without labor. Take a tip from the performance record of these and other Jaeger products:



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6 EAST 45TH ST., NEW YORK 17, NEW YORK . 3817 S. SANTA FE AVE., LOS ANGELES SA, CALIF. 6218 CEDAR SPRINGS ROAD, DALLAS 9, TEXAS . 1252 DAKLEIGH DR., EAST POINT (ATLANTA) GA. the purchase money, helped to clear and improve the land, drew up plans for the apartments, and secured a tentative FHA commitment for a dummy corporation. As a result, a package was ready for builders to bid on a year or two sooner than if governmental nature had been allowed to take its course.

· New Yardstick-In negotiating the FHA commitment, the foundation turned another stone. FHA guarantees, by law, could cover 90% of the "value" of a project. But FHA, wanting no repetition of earlier windfall scandals in which clever builders had made millions at no risk, was downgrading its estimates of project values, frequently to a point below actual cost. Urban projects all over the country were stalled by this conservatism.

Impatiently, the foundation went to work, helping stir up a fuss that led Congress to change the 90% coverage from value to "replacement cost." The

jam was broken at once.

Upshur Evans, the foundation's director, tells of successful efforts to light a fire under the Cleveland FHA office, and the city's own agency, which had been a mere added starter in the mayor's office. For one thing, the City Council last year elevated urban renewal to a full-fledged Dept. of Urban Renewal & Housing, headed by James M. Lister, the city's planning commissioner since 1949. Since then, Lister and Evans have formed an efficient

· Other Efforts-The foundation does more than dish out loans itself. It has done veoman service in getting banks to provide temporary financing for builders, and in coaxing savings and loan companies to take up conventional

mortgages.

The new housing that the foundation has helped to procure has been of very special value in getting decent shelter for low-income Negro steel workers. Learning as they went along, the foundation people have reached a point where one Clevelander said, "These men know more now about minority housing than any other group of businessmen in the country.

Despite the urgings of Mayor Celcbrezze that it branch out into Pittsburgh-type development, the foundation has generally stuck to its housingfirst program. It was not till very recently that it granted the Planning Commission \$50,000 for a study of a downtown master plan-provided other private interests would match the sum. The plan is expected to be issued this fall.

Meanwhile, the foundation expects to seek more capital to press new programs. The target of the drive hasn't been decided yet, though some think it may top the \$2-million that was raised

first time around. END



American Can Company's new 329,000-square-foot plant, now under construction. Canco's 38-acre site at Hammond, Indiana, was assembled by New York Central's Plant Site Consultants.

How New York Central helped American Can find an ideally located plant site in Indiana

Many problems needed solving before American Can Company could decide on the site for its new coil-processing center. New York Central came up with several good locations.

A 38-acre site at Hammond, Indiana, met Canco's requirements. The location was ideal for easy accessibility to tinplate and steelplate supplies. It was also a short and low-cost rail haul for shipment of plate to Canco plants in and around Chicago.

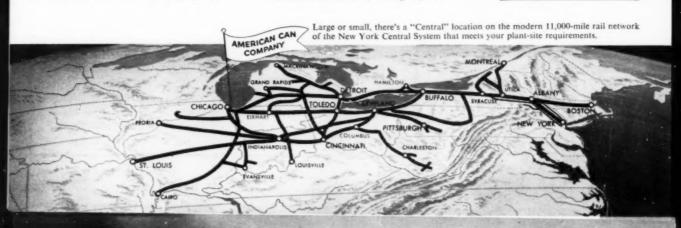
New York Central Plant Site Consultants assisted in assembling the land needed for the plant site, negotiated with owners for sale of this property, supplied labor data, helped solve drainage problems, built a special spur track to the American Can Company property.

New York Central has other plant sites, ranging in size up to 600 acres, in the Hammond, Indiana-Chicago and Lake Calumet, Illinois, area. In Alsip, Illinois, 18 miles southwest of Chicago's Loop, New York Central is developing Cal-Sag, a modern industrial district with sites available from 10 to 100 acres. Many other sites are also available.

What New York Central was able to do for American Can Company, its Plant Site Consultants can do for you. Let New York Central be your source of reference in locating a plant site to meet your needs. Write to Henry W. Coffman, Manager, Industrial Development Department C, New York Central Railroad, La Salle Street Station, Chicago 5, Ill.

New York Central can help you too!

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- We assemble the necessary acreage.
- Our staff aids in expediting plant construction in many ways.





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THE REGIONAL PATTERN

Too Many Municipalities?

N URBAN-SUBURBAN areas from coast to coast, "metropolitan government" has become both crusade and curse word.

Since the founding of the republic, people have come to think of four levels of government: federal, state, county, municipal. And any suggested hybridization among them is regarded with suspicion. Yet the county structure has been undermined by the growth of cities and, even more so, of their suburbs. Municipal governments have blanketed the county territory in many cases, vet are too much walled off from each other to work for the good of the area as a whole. The situation has been described as "too many governments, not enough government."

The typical city, when it starts to grow, annexes land around its fringes, developed or undeveloped. This action itself often prods suburbs into incorporating to retain their identity and self-government. Satellite communities themselves, not wanting to be stunted by the bigger city, race to annex unincorporated areas.

Frequently, the result is chaos. Half a road will be paved, the other half unpaved; people on one side of a street will have sewers, while the other side depends on septic tanks. A purely residential suburb with low assessables may not be able to maintain enough police and fire protection; the neighboring community, with a fat number of industrial taxables, can afford far more than minimum protection. Meanwhile, the central city must provide many services for commuters from both suburbs, without being able to tax them.

THE IDEAL SOLUTION, in theory, would be to throw the whole area under one governmental tent. The government would provide all the services, collect all the revenue.

But that doesn't work. Local politicians and jobholders fight to keep their posts. City taxpayers balk at extending services to the outlands, and suburbanites argue that their interests would be lost to view in a city-dominated supergov-

In Canada, provincial govern-

ments can ordain such govern-ments, and Ontario created Metropolitan Toronto as a jurisdiction cutting across municipal limits where areawide action is needed. It has been a success.

In the U.S., however, metropolitan government must be initiated from below. And it is difficult for the people to speak for it except through the very municipal governments that will be most affected by it. So it's easy to see why there aren't more metros here.

Miami pioneered metropolitan government in the U.S. last year, reorganizing the Dade County government to serve the whole area. But Metro Miami was authorized by only a narrow margin. Its officials made mistakes before the county manager was named, and the various municipalities are trying to capitalize on them in their effort to win back complete autonomy. They may yet win out.

Seattle and its suburbs voted a few weeks ago on a proposal to establish an over-all authority for sewer construction, rapid transit, and planning. The city voted in favor, but the suburbs thumbed the plan down.

THESE TROUBLES don't mean that it's time to write an obituary for metropolitan government. They do call for some stock-taking.

It is obvious that metropolitan areas differ in their needs, operate under different state laws, and require different approaches. Outside experts can give advice, but their plans must fail if deprived of the ideas and the enthusiasm of the residents themselves. Representative government is not an organism intended for the test tubes of political scientists, and those who would reorganize it must take into account the needs and the sentiments of the people it represents.

This calls for more flexible thinking by the states in allowing urban areas to accommodate to their urban-suburban problems. And it calls for a grassroots program of educating the voters in the problems and in ways of solving them. If voters are to reach an intelligent decision, they must be able to judge on more than generalities.



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FROM MANY FIELDS (below), Cal Research scientists pool talents on joint project, but each works from home base.

How Cal

Special setup for teams, plus open road to top as scientists, builds morale—and profits—for Standard of California affiliate.

Outwardly, there's nothing especially unusual about the group of California Research Corp. scientists in the picture (left). Such diversified research teams, made up of men trained in different sciences but working together toward a single goal, are a familiar sight in U.S. industrial research.

Yet there's one thing about the Cal Research group that sets it apart—and this feature of its organization was designed to overcome one of the biggest hazards involved in setting up such



ORGANIC research includes these oxidation stability tests of turbine oil in lubricant lab—an important part of work for parent Standard Oil of California.

INORGANIC research uses models to study elaborate structure of catalysts—also important to Standard—in X-ray crystallography lab.



Research Keeps Scientists Happy

ounteresearch and development teams.

• United, but Separate—The group is a formal project team studying the foaming characteristics of household detergents. Cal Research, a subsidiary of Standard Oil Co. of California, developed a product with the trade name Alkane, the petrochemical base for most of the "soapless soaps" that are made.

In the group pictured are four different strains of chemist—physical, theoretical organic, applied organic chemists, and a kineticist. There are three strains of chemical engineer—pilot plant development, process and plant design, and commercial plant operation. And in addition, there's the supervisor of the detergent testing lab.

Ordinarily, in this kind of a joint research group, the members are lifted

bodily out of their special fields to devote themselves exclusively, for weeks or months on end, to a single product or project—working under a project leader who may not even speak their own special scientific jargon. This makes for the kind of disorientation and loss of morale that comes to anyone uprooted from his normal environment—and with particular force to highly trained scientific specialists.

At Cal Research this doesn't happen. An hour after the picture was made, each man was back at his own regular bench or work station—three in the Chemicals Exploratory Research Div., one in Product Development, another in Process Development, still another in Process and Plant Design.

As a member of the project team,

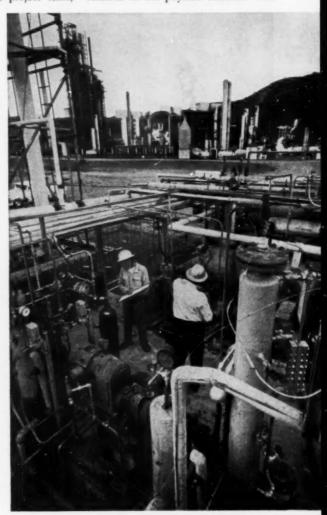
each scientist is the expert consultant and practitioner in his specialty—but he works from his home base. He is responsible not to the project leaders of the groups he may serve, but to the supervisor of his division.

This approach brings the talents of all members to bear simultaneously on the continuing problem of preserving the parent company's competitive position in the profitable detergent supply business. And the firmness of each member's continuing identification with his own exotic but well-defined hue in the scientific spectrum keeps morale high.

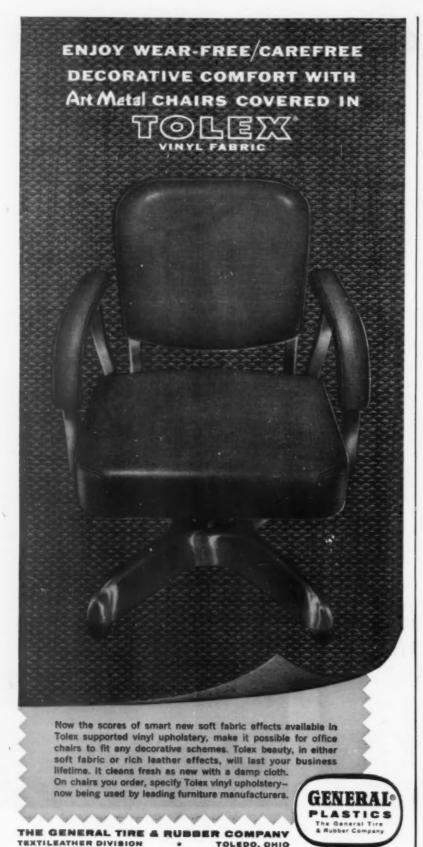
Paying Proposition—What Cal Research has done is apply a dash of the social sciences to its management of research in the physical sciences. The



PRODUCT testing is big part of Cal Research job, too; here, in test cell beyond control console and window, a Plymouth auto engine is running on test fuel with detergent additive.



PLANT in foreground, with men at work, is pilot setup with 50-bbl.-a-day capacity to try out Cal Research process for processing one petrochemical, propylene.



result is an environment, so recognized by other oil company laboratories, in which the scientist feels at home. This comes as close to pure scientific orientation as he is likely to encounter anywhere outside the ivy-clad walls.

A more dramatic result is the dollar return from the money Cal Research has laid out. Nobody can be certain, of course, what has been the total yield from the \$120-million Cal Research has spent since it was set up as a separate corporation in 1944. It is virtually impossible to try to assign dollar values to a new catalyst, a new lubricant, a fuel additive, a refinement of geophysical exploration practice, and add them all up to a meaningful sum over a period of years.

One fragment of the yield stands out in bold relief in the financial reports, though. Oronite Chemical Co., another subsidiary of Standard of California, owes its complete line of products—additives, catalysts, raw materials for plastics, synthetic fibers, and detergents—wholly to the result of research by its sister in the Standard Oil family. And Oronite's sales for the last 14 years are just a whisker under \$700-million.

If you were to give no weight at all to Cal Research's part in lifting Standard Oil's consolidated sales from \$329-million in 1944 to \$1.7-billion in 1957, the Oronite sales would still be impressive. And actually no more than 10% or 15% of the Cal Research budget is spent in areas of direct interest to Oronite.

I. Promising Birth

Cal Research was born at a time when the theories of business management technique were undergoing their first major overhaul in decades. Its parent had not only embraced the new techniques but had developed a few of its own. Standard of California's refinement of the organizational structure of modern business stands as a classic example of management leadership.

Its research subsidiary therefore has enjoyed advantages that were denied some of its longer-established rivals. Many of the most modern management methods were built into the original structure of Cal Research right from the beginning. This has paid off already in an impressive string of new products

Wartime Spur—Research identifiable as such goes back almost 40 years at Standard of California. But World War II still raged when management decided to create Cal Research. In some part, the decision was a hedge against the business slump that many thought would accompany world peace.

More particularly, though, Standard had its eyes on petrochemicals. As



ARKANSAS

and the water tree

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Multi-Mount Speed Reducers World War I had broken the U.S. supply line of organic chemicals from Germany and called on the embyro U.S. coal tar industry to fill the gap, World War II had overtaxed the capacity of the U.S. coal tar industry and called upon the oil industry to fill the gap. The common bond is that both industries, coal tar and oil, deal essentially with the infinite permutations of hydrogen and carbon when combined.

In common with other oil companies, Standard of California was called upon to squeeze and modify one of the hydrocarbons in petroleum into nitration-grade toluene for military explosives. This calls for a catalytic reforming process of almost exquisite precision.

• Opportunity—Once that process was mastered, the whole panorama of aromatic hydrocarbons—the benzenes, the toluenes, and the multiple xylenes, plus all their derivatives—stretched before the company.

Under pressure of war, oil companies also had learned much more about the upgrading of fuels and lubricants by manipulation of the atoms of hydrogen and carbon within the hydrocarbon molecule. Here, too, lay promise of reward to the company that, in the heat of peacetime competition at the gas pump, could make the atom dance to its music.

With those incentives, Standard Oil put flesh on the bones of its research skeleton. Cal Research was set up as a separate subsidiary because it was designed to serve the research needs of Standard's whole complex of exploration, producing, and refining companies, as well as its fledgling petrochemical subsidiary, Oronite.

Standard's foreign and domestic operations were already spreading far and wide. And this spread was already pointing to the need for an overhaul of the whole organization—a process that wound up a year or two ago in a complete realignment along straight subsidiary lines (BW-Mar.2'57,p156).

II. Operating Tie-In

Within the Standard of California family, Cal Research has three exclusive preserves—research, technical services, and patent management—all under Pres. Arthur L. Lyman, a chemist of 34 years service at Standard. About two-thirds of its personnel or nearly 1,400 and its \$14-million physical plant are at a laboratory in Richmond, Calif., on the eastern shore of San Francisco Bay, in the shadow of Standard's big Richmond refinery.

The rest are divided between two Southern California laboratories—La Habra, dealing with exploration and producing techniques, and El Segundo, devoted to refining and marketing. Lyman and his small presidential staff, along with the Patent Dept., are quartered in downtown San Francisco.

• Close Link—Lyman likes to think that there's a higher degree of integration between Cal Research and its captive "customers" than exists in other oil companies. His opinion could be colored by pride, but it's a fact that the dividing line between research and operations at Standard's of California is sometimes hard to detect.

Organizationally Lyman enjoys equal rank with the presidents of all of Standard's operating subsidiaries. He reports to George A. Davidson, vice-president of the parent holding company. This means that Lyman makes all the policy decisions for Cal Research. He decides what research is to be undertaken, how much is to be spent—and he must justify these decisions only to Davidson and the parent executive committee.

Long before he makes these decisions, however, Lyman knows the toplevel thinking of his "customers." This results from the functioning of four high-powered boards disarmingly labeled research committees, one each for oil field research, petroleum processes, petroleum products, and chemicals

• Top-Level—From among his own vice-presidents, Lyman selects a chairman for each research committee. Both Cal Research and the operating companies appoint members—and this is a tipoff to the stature of the committees.

Take the Oil Field Research Committee, chaired by Cal Research's Vice-Pres. R. F. Faull. Among its 21 members are one vice-president of the parent holding company, two vice-presidents of the giant Western Operations, Inc., the presidents of two and the vice-presidents of six other operating subsidiaries. Ex-officio gold braid includes Lyman himself, A. H. Batchelder, vice-president and general manager of the Richmond lab, two vice-presidents of the parent company, four subsidiary presidents.

Each research committee meets once a year to discuss and recommend program and budget for Lyman's consideration, and usually meets again for semiannual review. These meetings set the pace and direction of research and keep the research organization and the operating companies attuned to each other's needs and thinking. They also serve as a two-way feedback medium for technical matters of mutual interest.

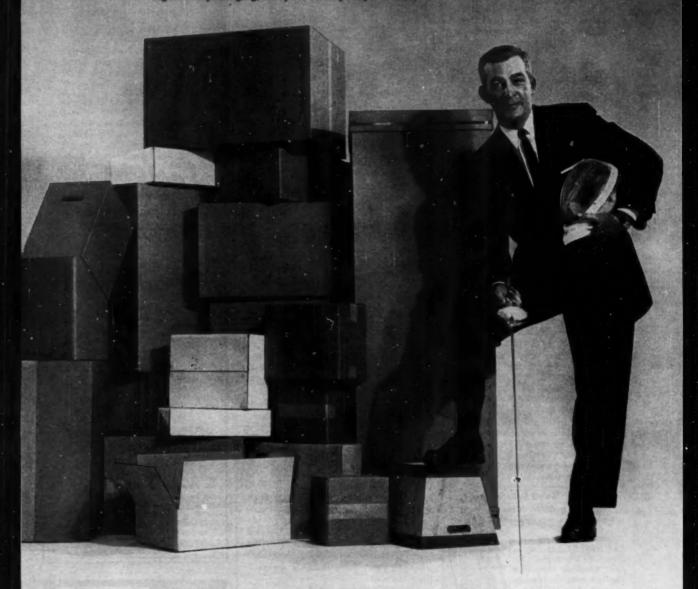
Besides this, research is subdivided in precisely the same manner as the operating company—exploration, production, manufacturing, marketing, with each of these major areas broken down into specialized fields.

• Day-to-Day Liaison-Where the research committees give Lyman a pipe-

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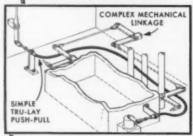
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601-A Stephenson Bldg., Detroit 2 2216-A South Garfield Ave., Los Angeles 22 929-A Connecticut Ave., Bridgeport 2, Conn. line into the top-level thinking of the affiliated companies, his technical service organization provides day-to-day liaison with the firing line. This service—which is unusual, if not unique, in many aspects of its setup—accounts for perhaps one-third of Cal Research's \$17-million-a-year expenditures.

In any industrial operation as complex as oil is, breakdowns and process failures are both inevitable and costly. In many cases, operating technicians can cope with these difficulties. But as science has probed deeper and deeper into the mating habits of the atom, operational flaws tend more and more to defy the people on the firing line. That's where technical service comes in, whether in exploration, manufacturing, processing, or marketing activities.

When trouble develops, a man or a team (as conditions require) is never more than minutes away—minutes that in some circumstances could cost hundreds of dollars each. The technical service men perform two important functions. They apply the professional savvy that corrects the deficiency and puts the plant back on stream. And their cumulative reports tend to put a finger on chronic weaknesses in a piece of equipment or in a process that calls for preventive therapy.

III. Talent School

A smooth, harmonious relationship is not the only goal of this close integration. The laboratory, with its 600 or more academically trained scientists, is a talent scout's paradise. Every year Cal Research loses from 30 to 50 of its professional people to the blandishments of the parent organization or its operating companies.

In this manner, Standard has picked up some of its most glittering executives and a whole raft of management men at operating levels. George Davidson and George Parkhurst, vice-presidents and directors of the parent holding company, are prize examples.

• Parallel Lines—But what about the dedicated scientist with no yen for an operational career or paper-shuffling administrative jobs? Does advancement in the salary scale require the lab to promote a good scientist, with his heart in subjective research, to a half-baked administrator?

Not necessarily. Lyman and his people have devoted much thought to this type of man, who poses the same challenge to every large research organization anywhere.

Lyman's solution has been to create three parallel channels of advancement for the researcher, with equal incentives -purely scientific; supervisory with one foot still on the scientific side; and purely administrative. A man with the stuff can climb as high on the



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pay ladder by one route as another.

The role of research in the fiercely competitive oil industry can be expressed in simple terms. It is to determine how a barrel of crude may be made to yield the optimum dollar value

in marketable products.

Standard of California's Chmn. R. Gwin Follis-who worked in research 32 vears ago and fathered the research subsidiary-puts it in a slightly different perspective. One function of research, he says, is to guide the selection of "tools" the company buys, "to insure that we get the greatest use out of the money we have to do our work." In the oil business this can mean big sums—in the past 10 years, for example, Standard has spent \$2-billion for the kind of tools Follis is talking about.

But the research job is nowhere near so simple as the terms you can use to define it. No two crudes are the same, for example: They differ in viscosity, in molecular distribution, in impurities. Each requires different refining techniques, and it's up to research to say how any raw stock can best be handled. · Results-The results can make a lot of difference to the company, though,

Cal researchers have made it possible for Standard to retain its sales leadership in Western states through development of additives for both fuels and lubricants, through development of new catalysts, and through refinement of catalytic and thermal cracking processes.

The same kind of organized research has enabled Standard to take advantage of the wartime petrochemical experience that steered it into the aromatic series of hydrocarbons-the benzenes, toluenes, and so on. Not only has Alkane -the base material for household detergents-been a flossy staple item in the Oronite chemical catalogue since 1946. A few years ago, Oronite builtunder license from Hercules, Londonthe first phenol plant in the U.S. using petroleum as its basic raw material.

The aromatic xylenes have also begun to pay off. Du Pont's Dacron became possible when Cal Research came up in 1949 with a feasible process for separating paraxylene in commercial quantities. Now undergoing service tests in carpeting, tire cords, and women's dresses is another synthetic fiber. The metaxylenes have yielded another product that Oronite is pushing with manufacturers of paints and plastics as an ingredient that will improve product performance and durability.

• Long Way-But with all the enthusiasm Lyman's scientists exhibit for the plastics and fibers and pharmaceuticals of tomorrow that are locked into today's crude oils, Pres. T. G. Hughes of Oronite has a word of caution: "After all," he says, "considerably less than 2% of petroleum is finding its way into chemicals . . . we have a long way to go." END

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In Research

Space Travelers and Homebodies To Get Food Packaging They Can Eat

Research at government and industral laboratories seems sure to revolutionize food packaging techniques in the near future.

For example, food and other supplies for space travel won't be packaged in metal cans but probably in chemical films fortified with vitamins. Even in the corner supermarket, food will be packed in containers that can be eaten, used as a plant food, or in some other way converted into useful byproducts.

Problems in packaging food for space flight and for home consumption on earth are quite different, says Albert Olevitch, chief of the Packaging Laboratory at the Air Force's Wright Air Development Center in Ohio. But advances in one field are aiding research in the other, he points out. For example, one company is almost ready to market a pressure-sensitive tape that can also be used by housewives as a plant food.

In comparing space packaging problems with conditions on earth, Olevitch notes that rust won't be a problem in space, because there's no moisture out there. However, the lack of air out in space increases the researcher's problems in protecting supplies against shock—there's no air resistance to serve as a buffer.

This means that packaging engineers won't have to protect so much against the vibration and acceleration effect of rocket vehicles as against the chance that a worker may drop a package while carrying it around on the moon's surface.

Before man even tries to land on the moon, however, instruments will have to be dropped there by orbiting rockets, and their fall will have to be gentle enough to leave them in working order. Packaging engineers now think the best way to do this is to equip the instrument containers with plastic bags that would automatically inflate with compressed air to absorb the impact.

Johns Hopkins Team Works Out Blood Test to Diagnose Disease

The long-sought single test to identify serious disease in a patient may have been found at Johns Hopkins School of Hygiene & Public Health. Doctors at Johns Hopkins have tentatively decided that each serious disease—cancer, tuberculosis, schizophrenia, heart ailments, arthritis, and other diseases—produces a characteristic pattern in the mucoproteins that are found in the blood.

When a person contracts one of these serious diseases, the pattern that marks good health immediately changes to such an extent that a lab technician can identify the disease from analysis of a blood sample without knowing anything else about the patient.

This is the finding of early experiments, according to

Dr. Winston H. Price, who heads a 31-man team of investigators that is working on diagnostic technique. The discovery grew out of studies of mucoprotein levels in rheumatic fever cases.

This technique involves fractionating the mucoproteins by a fairly common chemical lab method called ion exchange chromatography. Time required for diagnosis ranges from 24 hours for such diseases as nephrosis and nephritis to 72 hours for angina.

Cure for Some Forms of Cancer May Come by End of This Year

Medical authorities are increasingly hopeful that a cure for at least one type of cancer may be announced before the end of the year.

According to Dr. John R. Heller of the National Institutes of Health, tremendous progress is being made in the case of leukemia, including the possibility of vaccinating people against getting it. Most of this research has evolved out of tests indicating that leukemia and other forms of cancer are caused by a virus.

There's new hope also for patients who are already suffering from leukemia. The Institutes' chemotherapy screening program is spending more than \$11-million a year on industrial contracts for testing chemicals and natural products as possible anti-cancer agents.

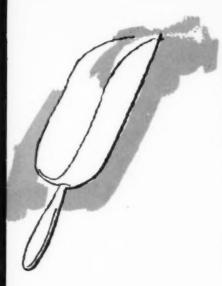
One of these chemicals—Lederle Laboratories' dichloroamethopterin—appears to be 75% more effective in treating animals afflicted with acute leukemia than the most effective anti-leukemia drugs already being used on human patients. Clinical tests on human beings will start as soon as Lederle can make enough of the new drug for testing purposes.

Hydrogen Proves to Be Culprit In Fractures of Plated Steels

Studies at the Case Institute of Technology have apparently solved the mystery of why certain high-strength steels fracture when used on jet planes and rockets. The answer was given to last month's meeting of the National Assn. of Corrosion Engineers in San Francisco by Dr. Alexander R. Troiano, chairman of Case's Dept. of Metallurgical Engineering.

Beyond a doubt, said Dr. Troiano, studies prove that the trouble lies in hydrogen that is trapped in the steel when it is pickled and plated to resist corrosion. This hydrogen can be eliminated quite simply, he said, if the plating process is stopped when the cladding material—usually cadmium—reaches a thickness of 1/10,000 in., and the metal is then baked to drive out any hydrogen that has accumulated. After that, he assured the engineers, any thickness of cadmium plate can be deposited on the steel without risking failure in the steel.

Some high-strength steels have withstood test forces up to 225,000 to 275,000 lb. per sq. in., so they are in great demand in the rocket age—or will be when they are cured of their nasty habit of fracturing under stress after they have been plated to resist corrosion.



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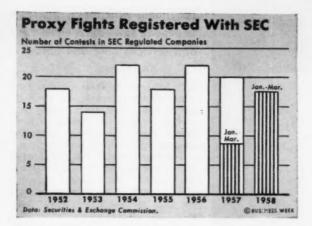
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Victor Chemical Works, Box 603, Chicago 90.



In Management



Proxy Fights Head for a Record Year With a Bumper Crop in First Quarter

Twice as many proxy fights have been registered with the Securities & Exchange Commission in the first three months of this year as were registered in the same period last year. The 18 contests so far this year set a new three-month high, only four less than the full-year records of 22 in 1954 and in 1956.

The SEC figures from 1956 on come from 14B statements that must be filed by both management and dissidents in any listed company, regulated investment company, or public utility holding company where there is a proxy fight. The figures before the 14B regulation include only those fights that actually turned into battles at the annual meeting, exclude any disagreements that are settled ahead of time by compromises.

Fights in companies traded over the counter (such as the recent one at Pabst Brewing Co.) are not regulated by SEC, and thus not included in the tabulation.

The SEC's newest proxy fight is at Philadelphia & Reading Corp., where Percival E. Jackson, a director who cannot be reelected because of a new company rule barring board members over 65, is trying to get an "independent" director on the board.

CPA's to Consider Depreciation Based on Replacement Costs

As a result of a survey of businessmen and the heads of business schools, the American Institute of Certified Public Accountants is about to reconsider the accepted accounting procedure for treating depreciation in reports to stockholders.

Accountants have traditionally based depreciation on the actual cost of plant or equipment. Prices, however, have risen so sharply that many industries contend that it's unrealistic not to base depreciation on current replacement costs.

MORE NEWS ABOUT MANAGEMENT ON:

• P. 80 Dresser Industries' formula for success in the oil field equipment business: the right products at the right time.

Seventy-four percent of the answers to the Institute's survey favor changes in accounting practices so as to reflect current dollar costs of depreciation when reporting to stockholders. This reverses the opinion indicated in the Institute's last previous survey on this question—in 1948, only about 30% favored a change.

The Institute's 21-man Committee on Accounting Procedures pretty much dictates accepted accounting practices. Methods set forth in its bulletins are accepted, for example, by the Securities & Exchange Commission. The committee has had the matter of price-level adjustment of depreciation on its inactive agenda since the 1948 survey; at its June meeting, it will consider moving it to the active agenda.

Even then, it might be a year or two before a bulletin is issued. The group has issued only 49 bulletins in its 20-year existence, and only two of these have dealt with depreciation. The latest: No. 44, approving the Internal Revenue Service's accelerated depreciation plans for internal as well as tax use.

In the recent survey, business educators and executives of industries such as steel, metal-processing, chemicals, and paper were most enthusiastic about a change in depreciation write-offs.

A slim majority of those who favor depreciation at current costs favor making this method mandatory, rather than optional, in reports to the stockholders. Most think it should be done by a simple footnote, but others favor issuing a supplementary income statement or an adjusted income statement and balance sheet.

Workers Ask to Work on Day Off —But It's All for Charity's Sake

Last Saturday, Edgcomb Steel Co., Philadelphia steel wholesaler, had its annual Charity Day—the employees' own way of getting together to take care of dozens of welfare drives in one swoop. Some 300 Edgcomb employees worked four hours on what is usually a day off, put their time-and-a-half earnings into a special fund that is doled out to the various organizations (United Fund, Red Cross, Salvation Army, and so on) in lieu of solicitation by representatives of the philanthropies.

The fund of about \$4,000 a year is administered by six employees elected by the workers. The committee bases its apportionments on charities listed by the workers along with the percentage they would like each to get. Last year, 40 charities got donations from the pot.

This is the ninth year Edgcomb has used the system. As proof of employee endorsement, management points to the fact that those who miss work on Charity Day ask to make it up on a subsequent Saturday. The value of the wages from the half-day is deductible on income tax returns.

Another 200 Edgcomb employees working at branch warehouses also observed Charity Day.

TURBODRILL, high-speed equipment used to penetrate deep, hard rock, gets a test run at Dresser Industries. The drill is part of company's "package" deal for the oil industry.

Building an

Dresser Industries combines artful timing with timely products to expand sales of its equipment and services here and abroad.

Start talking about Dresser Industries, Inc., with anybody who does business with the company, and you'll get any of a dozen reactions ranging from "tough operators" to "swell guys to do business with." One thing is sure: The reaction will rarely be neutral.

The top three men who run Dresser (cover, pictures) are the ones responsible for such sharp corporate images. H. N. Mallon, chairman, since 1929 has been guiding genius of the company. John B. O'Connor, president, a beguiling salesman and world operator, a year ago made headlines with his plans to import turbodrills from Russia. R. E. Reimer (page 84), executive vicepresident and treasurer, is "a fast man with a pencil." Even people who are not their fans and ardent supporters admit that "these boys are sharp-and they don't get into any game for marbles.'

• Dresser Empire-Their combined strategy and tactics have lifted Dresser from a company that 15 years ago was doing about \$28-million annuallylargely in pipe couplings, gas appliances, and pumps and compressors-into one that last year racked up \$275million supplying a rounded package of equipment, supplies, and services to the oil, gas, and power industries around

the world.

From Dallas headquarters, the group runs an empire of 12 operating subsidiaries in the U.S. and 22 foreign subsidiaries or affiliates, a number of which the company has picked up

within the past decade.

• Growth From Within—Some observers suggest that Dresser's growth has come about entirely through the acquisition route. Mallon discounts that idea. The real growth, he insists, has come from within, and in products that grow faster than the average of the industry -"where we've got more on our side than just our own efforts." Reimer, who admits being a highly profit-conscious man, adds, "We never take on a company just to get big. Before we go into a deal, we have to see that two plus two equals five."

Over the past 20 years, the company has acquired almost 20 others, lopped off without qualms almost half of them that did not fulfill early promise for growth. In the process, Dresser has gone in and out of the appliance field, translated its business from one almost ex-

Empire on an Oil Supply Package

clusively "hardware" to one where "expendables" represent almost half-and learned to jump nimbly over nationalism and currency walls to do business around the world.

I. End of Hibernation

The original Dresser business goes back to 1880, but the modern Dresser Industries really dates back only to 1930. In the 50-year-interval, the family-owned company had concentrated entirely on couplings, used for stringing pipe together. In 1928, the company stock was sold in a public offering. The next year, Mallon, who had headed a can-making company that had been merged with a giant, was brought in as president by the security underwriters. Reimer, a Cincinnati banker, joined up at the same time.

By 1933, Mallon was ready to branch out. He picked up Bryant Heater Co. of Cleveland, which made gas heaters, on a stock swap. Dresser couplings at that time were going largely to gas transmission lines; Mallon figured that any product that sold more gas also helped sell more couplings.

At the same time, he was looking for other tie-in products. Dresser engineers came up with a new compressor, with roughly 10 times the power of standard machines of that time, which tied in nicely. But the company needed a place to make them. So in 1937, Dresser bought Clark Bros. of Olean, N. Y., another family-owned business ready for revamping, which made compressors. O'Connor came in with Clark Bros.

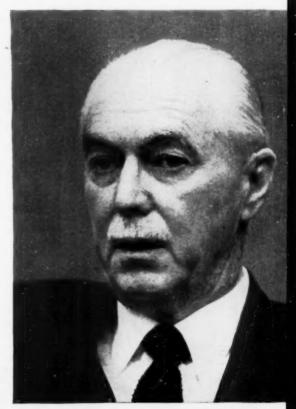
· Diversification-Over the next halfdozen years, the Dresser itch to diversify got more intense. Between 1940 and 1945, the company absorbed eight other firms, most of them in oilfield equipment, but including two that also produced gas appliances.

By this time, Dresser had built itself a nice package of capital equipment for the gas and oil business, plus a tidy appliance business on the side. After the war, it decided to shift a little.

The appliance business at that time was booming. By 1948, Dresser's three gas appliance subsidiaries accounted for about 25% of the \$108-million sales the company racked up that year. But Mallon didn't like the way the field looked generally. "It didn't take much investment to put a sheet metal furnace together. Once the rapid rise in use of gas for heating became obvious, everyone wanted to get into the actwith all the cutthroat competition that goes with it. So in 1948, while the gas appliance boom was still at its peak, we decided to get out." Dresser sold off its stove companies for approximately \$11-million, and with the cash went company-hunting in earnest.

· Opening Wedge-At the same time,





PRESIDENT John B. O'Connor, Dresser's No. 1 salesman, claims foreign sales of over \$60-million.

CHAIRMAN H. N. Mallon (left) insists that Dresser got its real growth by expanding from within.



the company decided to go all-out in gas and oilfield equipment. "It's a steadier business," says Reimer, "and we believed it would be potentially more profitable than anything else we knew."

But within that comparatively narrow field, Dresser's wedge was still narrow. The bulk of its business was in rejusable hardware—drilling rigs, pumps, compressors, all of which last for years with proper treatment—and even with the oil and gas industry growing, there was a foreseeable limit to the market. Besides, oil activity in other areas of the world was accelerating possibly even faster than in the U.S., and Dresser overseas volume was comparatively minor.

So Mallon and his associates decided to build as much or more business again in "expendables," such as drilling muds. It takes only one rig to drill for oil—but the deeper the hole, the more mud required, and drillers were going deeper every year. At the same time, the company started pressing harder on foreign operations.

II. Money, Marbles, or Chalk

The foreign business is John O'Connon's baby. The company's No. 1 salesman, he boasts that "I'll trade for money, marbles, or chalk." By 1950, he had pushed the foreign business to about \$9-million.

Several years ago, O'Connor got interested in the Russian's turbodrill, a piece of oilfield equipment that U.S. manufacturers have been trying to perfect for years. State and Commerce Dept. officials quashed the deal when it was learned what the Soviet wanted in return (BW-May19'56,p135).

Shortly after World War II, O'Connor got a multimillion-dollar order from the government of Rumania for equipment needed to rebuild the bombed-out petroleum industry there. After most of the material was assembled and ready for shipment, but before delivery could be made, the Iron Curtain rang down.

Meanwhile, Rumania had already put up the gold—or at any rate, says O'Connor, "the gold was under Dresser control"—and wanted its money back.

O'Connor had other ideas. He knew that Argentina would like this equipment, but had no money to pay for it. O'Connor hopped some planes, worked out a three-way deal. Argentina got the oil equipment, Rumania got a lot of Argentina commodities, and Dresser kept the Rumanian gold.

 Operator—But barter is a doubtful method for long-term international operations, so O'Connor has worked out an intricate method of international dealing that bypasses dollar shortages and nationalistic prejudices that have complicated life for some U. S. firms.

Dresser has licensed other companies



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in five European countries to manufacture its products; but Dresser itself acts as worldwide sales agents not only for its own direct production but those of its licensees as well. Dresser takes both its sales commission and its license royalties-in dollars.

It works this way: Say a Peruvian company wants some Dresser equipment, has lira or marks available, but is short of dollars. The Italian or German licensee sells the equipment. The Peruvian buyer pays a small part in dollars, enough to cover Dresser's fees, the rest in lira or marks. The Peruvian company gets its equipment, the European company gets more business-and Dresser gets roughly the same profit it would have earned if the product had been made in the U.S.

Says O'Connor, "We wind up with the same number of marbles, but our

sales area is expanded 100 times."

• Everybody Wins-Since Dresser insists that equipment bearing its label is identical no matter where it is madeand a quality control is maintained by a roving staff of 15 Dresser engineers who provide supervision as well as technical assistance to licensees-O'Connor figures everybody is ahead of the game. Apparently the play has been successful: Last year, Dresser's direct foreign business racked up about \$60-million in sales, not counting the supplemental revenues from licensees.

III. The "Expendables"

Even more important has been Dresser's shift to expendables.

To find oil today, operators have to drill much deeper to get the same amount of petroleum that they got a decade ago. The deeper the drilling, the more drilling mud is used. Mud acts as a lubricant, cools off the drill, helps plaster the wall of the well, and is handy in case of an explosion.

As early as the 1940s, Dresser figured that the drilling race had to become more intense, so it set out to get into the mud business.

Magnet Cove Barium Corp., of Magnet Cove, Ark., had as its principal asset a barite mine. Barite is a principal ingredient of muds-and by the late 1940s, Magnet Cove (now known as Magcobar) was supplying close to 20% of the industry's needs. In 1949, Dresser picked it up for \$2.8-million in cash and 17,515 shares of common stock, then worth about \$350,000.

• Fast Expansion-Once in, Dresser set about to expand that business. Using its wider credit and contacts, Dresser shortly acquired the biggest bentonite (another basic raw material for drilling muds) reserves in the U.S., and started looking around the rest of the world. While checking some barite deposits in Nova Scotia, Dresser geolo-



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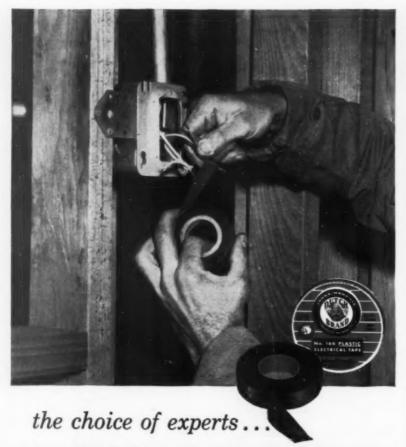
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JOHNS-MANVILLE

gists discovered that there was more of the mineral than the owners realized, and that the hazards of getting it out were less than had been thought.

The company also found deposits in Greece and Mexico, and today Magcobar and its foreign affiliates have the world's largest reserves of both barite and bentonite. In the nine years since it came into the fold, Magcobar has become the biggest mud company in the business, and its profits have expanded sixfold.

• Other Additions—To its mud business, Dresser has added a host of other expendables, and services. Since 1955, it has bought up several more companies to round out a complete package. Layne Wells and Wells Surveys supply equipment and service for "bullet perforating" (a technique used to puncture casing after a desired depth has been reached) and radioactivity well logging, and automatic electronic metering devices. Southwestern Industrial Electronics makes complete seismograph systems, plotter and computers for exploration. Guiberson Corp. makes one-time-use drilling products as well as shallow drilling equipment.

The shift would seem to have paid off. In 1949 (after the gas appliance business had been shed), Dresser's volume of \$80-million represented solely capital goods. Last year, the expendables alone accounted for almost 47% of its total volume of \$275-million.

IV. Package Deals

Although 80% of Dresser's total business consists of products and services used in exploration, production, refining, transmission, and distribution of oil and gas products, it has used its facilities to "branch out laterally."

One of Dresser's early acquisitions



TREASURER R. E. Reimer heads experts ranging from accountants to researchers.



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"Why? First, because it is more economical to have contract plants produce special tooling. Their full-time use of skilled personnel and expensive equipment distributes costs equitably. Unfortunately, industry seldom charges its overhead properly to tool and die operations, and it is difficult to get them to establish a standard method for doing so.

"They usually start with a department that does tool maintenance only. Eventually someone says, 'As long as we have these men and equipment here anyway, why don't we make our own tools and dies?' It goes on from there; the department becomes larger and larger, and real overhead costs are obscured.

"Second, because seldom, if ever, does an internal shop keep its tool and die makers busy at their greatest skills. This waste of critically-short skilled personnel is a costly business practice. Ninety-nine times out of a hundred, when a company starts to do its own work it does so to save money. But in the area of special tooling, if they were to figure the true costs, they would change their minds."*

Evidently Mr. Trundle's advice is making sense to increasing numbers of cost-conscious executives. More and more mass-production plants are finding it profitable to go outside to contract tool and die specialists for all their special tooling requirements. Why not look into your own tooling procurement practices? Chances are you will find good reason to call in a dependable NTDMA plant.

*From an address before an NTDMA Convention.

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was Pacific Pumps, a relatively small West Coast maker of "hot oil pumps," which can take the heat generated in oil and petrochemical operations without seals breaking down. Today, Pacific is one of the largest pump suppliers to the electrical industry. Its competition includes Ingersoll-Rand Co., Worthington Corp., and Cooper-Bessemer Corp.

Similarly, as an outgrowth of one subsidiary's building of drilling rigs, engineers designed radio and television towers, a sideline that has developed into a significant business in itself. In its oil rig manufacture, Dresser competes with such companies as National Supply Co., Oilwell Supply Div. of U.S. Steel, Continental-Emesco Co., Bethlehem Supply Div. of Bethlehem Steel.

• Dresser Circle—While Dresser boasts of supplying a "package," the components are made in the U.S., by a dozen "autonomous" if closely integrated, companies. But at headquarters, Dresser maintains a staff of experts in most management areas, from whom the subsidiaries are expected to seek counsel. John Lawrence, former president of Joy Mfg. Co. (BW-Nov.9'57,p52), is in charge of operating vice-presidents.

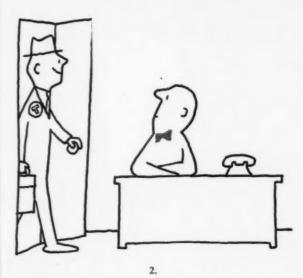
The top group has no qualms about delegating authority to an individual operation, but both insiders and outsiders agree that "broad policies" are established by the ruling triumvirate. The top group argues that since no single company the size of the average Dresser company could afford the array of specialized talent that headquarters maintains, the combination supplies "the advantages of both small and large companies without the disadvantages of either." Besides, the top group feels that "we've made this organization grow and prosper mightily our way, so you do it our way."

• Shoals—That is probably one of the reasons the planned merger a few months back between Dresser and Gardner-Denver Co. (which does some \$70-million in its own right in some of the same fields as Dresser) fell through literally on the eve of signing the final papers. An entirely new industrial division was to be created that, in addition to Gardner-Denver as a sort of senior partner, would have included five existing Dresser companies: The agreement shattered on the question of who, specifically, was to run the show. Where the Dresser trio is involved, there can usually be no question of who is running the works.

Under any conditions, their strategy and tactics seem to pay off. Although in the last few years many companies have had to fight declining profit margins in spite of increased sales, Dresser quotes statistics that show that not only has over-all volume tripled since 1950, but the net profit margin has climbed from 6.8% to 7.5% last year. END



"Ah cruel fate," Tom Adams cried. "I guess it's just the breaks
That every time I hire a man he ups and pulls up stakes."
A man from Travelers rescued him: "The writing's on the wall—
What your firm needs is pensions for your workers one and all."



Tom sighed, "I tried, but how to choose—I'm really unprepared."
"Precisely why I'm here, dear sir," the Travelers man declared,
"Deposit Administration or Deferred Annuity—
The Travelers has a pension plan that's just your cup of tea."



"Besides," he beamed, "with us your pension plan is not a yo-yo
To zoom in market boom and take a plunge if stocks are so-so.
No matter what the market does your pensions are insured;
So costs remain in line, your people's payments are secured."



Smiled Tom, "I'm sold on pensions that are not a market pawn."

Tom's lawyer saw the Travelers man and sewed the buttons on.

If you've been losing workers 'cause you lack a pension plan,

This cure is sure—just telephone a trusty Travelers man.



THE TRAVELERS

INSURANCE COMPANIES, HARTFORD 15, CONNECTICUT



What is the newest way to air condition a building?

It's the Carrier Multi-Weathermaker System—a unique, new concept of air conditioning, so flexible it can be adapted to any building regardless of size, age or use. The System uses a number of self-contained Carrier Weathermakers* which are co-ordinated into a single, integrated system by a master installation plan. All the Weathermakers required to air condition your entire building may be installed at once. Or you may choose to install them step by step, in predetermined sections—an office, a suite or an entire floor. This way, financing can be spread over a number of years. But either way, there's no interference with normal business routine. Four of the many applications that make up a Multi-Weathermaker System are shown at the right. Each has its own advantages. For complete details, call your Carrier dealer listed in the Classified Directory. Or write Carrier Corporation, Syracuse, New York, for a new 24-page booklet about the Multi-Weathermaker System.



For a series of partitioned offices, Weathermakers like these distribute air to each office through inexpensive ducts. They may be free-standing, recessed or entirely concealed in the wall. Each unit has all the components necessary to cool, dehumidify, filter and circulate the air.



For a whole floor, the Multi-Weathermaker System handles the entire area with a number of strategically located units. These Weathermakers may easily be relocated when you move or whenever a change in office arrangement may create an unbalanced or increased air conditioning requirement.



For large open offices, this inexpensive new Weathermaker distributes cool, invigorating air to all parts of the room, with or without ducts. Each unit is entirely self-contained and requires no plumbing or water. Only electrical connections are necessary. A System like this is simplicity itself!



For a first floor retail shop, Weathermakers like this can be installed up and out-of-the-way in a transom or storage room, requires no valuable floor space. If the shop remains open for evening business, customers enjoy air conditioning even when the System is shut off in the rest of the building.

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* Makes saving a pleasure

* News for flexible packaging

* Dynamite detonator tubes are made by winding a tough Riegel paper called "Red Detonator" around a mandrel. Needless to say, it's an



extraordinary paper, combining high strength, weather resistance and easy formability with other technical properties. One more example of Riegel engineered papers.

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color, and printability, many such envelopes now use Riegel's Jersey and other strong Riegel papers.

* Riegel's new Indiana plant now adds many advanced new films to our extensive flexible packaging line. Look to Riegel for combinations of polyethylene, cellophane, Mylar[®], foil, glassine, pouch paper...plus printing, waxing, coating.

* Have you problem that may be solved by a better paper? Just write to Riegel Paper Corporation, P.O. Box 250, New York 16, N.Y.



FINANCE

Equity Financing's Luster Fades

Forthcoming public issue of Lykes Bros. Steamship Co. stock stands out as common offerings dwindle to slow trickle—in contrast to activity in long-term bond issues.

Last week, Lykes Bros. Steamship Co., one of the largest U.S. shipping companies (net worth: \$172-million), announced plans to make its first public issue of stock. The sale will include 300,000 new shares of common stock, plus 100,000 shares now held by three stockholders.

Lykes' decision is noteworthy not only as another instance of a familyheld company going public, but even more so because of its timing. For the offering-scheduled for late April will be one of the few common stock issues to appear on Wall Street this

• Dwindling – Lykes' announcement highlights the fact that while many companies are borrowing in the long-term capital market, new common stock offerings are dwindling. In the first two months of 1958, according to Investment Dealers' Digest, only 27 such issues with a market value of \$327-million were floated. March's pace was even slower. Meantime, debt offerings of \$1.1-billion—in 59 issues—came to the market.

Equity financing has been unattractive since stock prices fell last July. For the first six months of 1957, IDD lists in public offerings 197 new common stock issues worth \$1.5-billion. But in the second half of the year, the decline in stock prices took its toll: only 128 issues with a market value of \$645-million were sold. Over-all, common stock offerings declined from 22% of all corporation flotations in 1955 and 21% in 1956 to only 19% last year.

 With the Current—The decline is not unusual. When the stock market runs at high levels, and prospects appear bright for future earnings growth, corporate treasurers figure equity financing is often the cheapest way to permanent expansion of capital.

But when the stock market drops, and prospects for earnings look sour, equity financing loses flavor. Corporations are reluctant to sell stock at low prices—and run the hazard of diluting the equity of the old stockholders. Moreover, investors won't put money in new equity issues when they feel uncertain about stock prices; in today's market, they're doubly cautious because many were burned when prices fell on most of last year's new stock issues.

Underwriters report that this slackening could well continue for the rest of the year—unless stock prices rise sharply. A number of small companies, such as Taylor Instrument Cos., have postponed or canceled new issues of common, and the blue chip companies are turning to debt financing because of the lower costs.

These are lower not only because interest rates have turned down with easier credit, but also because interest on borrowed money is tax-deductible while dividends on stock are not. This tax feature means that companies borrowing at just over 4%—the current rate for top-credit firms—pay a net cost of about 2%.

• Under the Wire—Underwriters note, however, that some companies may try to work in new equity issues in the next few weeks, counting on the market's current rally to carry them through. Three weeks ago, for example, Reichhold Chemicals, Inc. floated a \$5.1-million, 200,000-share issue that had to be postponed last November when the market flopped.

The delay, though, cost Reichhold a stiff price; underwriters had to clamp a \$1.75 sales cost—or 6.9%—on each share. Such steep rates furnish one reason why many smaller companies are backing away from stock financing.

 Necessity—But many small firms can't get the advantage of low borrowing costs, simply because they're not in a financial position to attract conservative bond investors. So they're forced into the equity route. In a way, this was the case with Lykes.

The company has no funded debt, though its ambitious shipbuilding program will require debt financing later on. (It has contracted with the government to replace 53 freighters over the next 12 years at an estimated cost of \$500-million, 55% of which will be borne by the company.)

However, since Lykes is relatively unknown to the public, debt financing would be difficult, or very expensive. That's one reason the company is engaging in equity financing now—to pave the way for debt financing later. Another is that the company needed more public participation to apply for a New York Stock Exchange listing; the Lykes family holds about 76% of the stock.

Many companies that have sold stock lately gave their own stockholders first crack at the new shares—via "rights" offerings—at sharp discounts from the market price. Royal Dutch Petroleum Co., for example, had an \$8.50 per share discount on its \$228-million "rights" offering in January.END



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INDUSTRIES

New Worry . . .

. . . for machine tools, already in serious slump, comes from growing sales of military surpluses.

The machine tool industry, wracked by a serious slump in sales over the past year, is alarmed by a new market threat: the growing volume of surplus tool sales by the military services.

past year, is alarmed by a new market threat: the growing volume of surplus tool sales by the military services. Machine tool builders still are haunted by what happened immediately after World War II, when hundreds of millions of dollars worth of idle military-owned production equipment was dumped on the market to further depress a machine tool market already hurt by postwar cutbacks in arms output. The builders now are worried this same situation is being repeated.

• Growing Surplus—Surplus military tool stocks have increased from about 10,000 units in fiscal 1956, to 11,000 in fiscal 1957, and to some 12,000 this year. Some officials expect the surplus tool inventory to total about 13,000 next year. The industry is concerned not only about the increase in numbers, but also in the quality of machines the military services now declare surplus and sell on the open block to high bidders.

Until recently, the bulk of surplus military tools have been either special-purpose machines with little value in civilian manufacture or badly worn-out general-purpose tools that ended up on the salvage heap. But the Defense Dept. now is starting to peddle lots of used machinery—lathes, milling and grinding machines, and the like—which many metalworking shops find more conomical than buying more costly, brand-new machine tools.

• Sagging Orders—Meanwhile, the machine tool industry's volume of new orders has sagged from \$63.2-million in January, 1957, to about \$19-million in January, 1958.

Actually, not all the surplus military equipment is put on sale. Last year, for instance, of the 11,000 used tools declared excess to military needs, only 9,600 machines, originally worth \$68.8-million, were sold as surplus. The remaining equipment was picked up by other government agencies, mainly for stockpile in the national industrial equipment reserve. Before a military service can sell excess equipment, there's an elaborate 135-day "screening" period to allow other serv-



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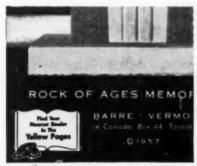
How to build sales support for your dealer organization

H. L. HEINZELMAN, Vice President, Sales, Rock of Ages Memorials, Barre, Vermont, says: "We started using Trade Mark Service in 1947 and are now spending approximately 10% of our advertising budget in the Yellow Pages of 422 telephone directories. We know Trade Mark Service is a valuable adjunct to our national advertising and has gone a long way to help us build a stronger dealer organization.

"Our ads, which of necessity must be digni-

fied, always carry the Yellow Pages emblem to help guide prospects to our dealer trademark listings in the classified."

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"OUR ROCK OF AGES trade-mark tie-in in the Yellow Pages brings many orders," says Harold Hall, Jr., Manasquan, N. J.



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- Wire for severe crimping or clinching upholstery spring construction

Keystone Steel & Wire Company, Peoria 7, Illinois



KEYSTONE WIRE FOR INDUSTRY ices and civilian government agencies to grab tools for their own uses.
• Serious Impact-Still, Ludlow King.

• Serious Impact—Still, Ludlow King, executive vice-president of the National Machine Tool Builders Assn., claims the military tool disposal program is having a serious impact on new tool business. A listing of 859 used machine tools up for bids at an Air Force installation in Marietta, Ga., King notes, included 101 internal grinders made by one manufacturer and 69 by another. Says the executive of one of the com-

Says the executive of one of the companies: "I believe the other manufacturer and ourselves are the major builders of internal grinders, and suspect that this total of 170 units would represent at least six months output for our industry at current production rates."

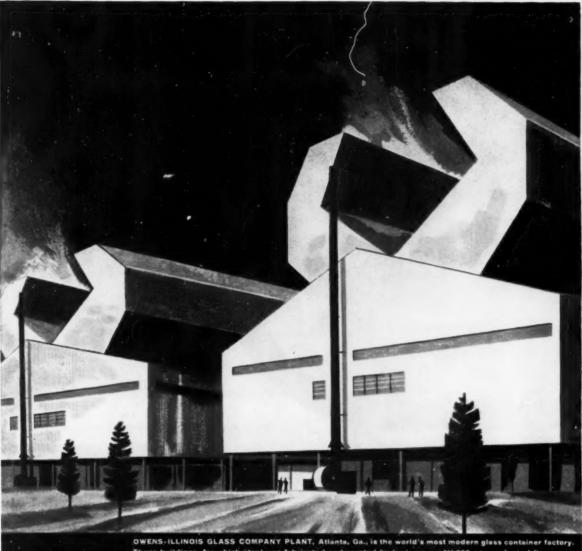
The Defense Dept. is the biggest machine tool owner in the country. Its inventory of some 350,000 tools, with an original value close to \$4-billion, represents about 18% of the nation's production equipment assets.

Right now, about half the militaryowned tools are idle on production lines or in dead storage, mostly because of the phase-out in production of tanks, prop-driven planes, ammunition, and other conventional weapons, and the general slackening of all aircraft production. Meantime, the stress on low-volume missile manufacture has failed to bring much of a spurt in military procurement of new tools.

• The Impetus—The recent switch in Washington's mobilization policies—downgrading the importance of preparing for a prolonged industrial buildup in a future war—has provided the impetus for getting rid of much of the idle equipment. Pentagon officials say that in many cases they can't afford to pay for storing idle tools, that it's frequently cheaper to sell the equipment. But they concede that in the past year, surplus tool sales have yielded only 14¢ on the dollar. This year, with machine tool sales in the doldrums, one official says: "We'll be lucky to get 10¢ on the dollar."

• Official Attitude—Many Pentagon officials charge that the tool industry's fears about the impact of military surplus tool disposals are exaggerated. But officials in the Office of Defense Mobilization and the Commerce Dept. recognize that the rate of surplus sales is on the rise. And recalling what happened after World War II, they're thinking of ways to protect the machine tool market. To lessen the impact, two schemes are being considered:

 Before the surplus equipment is put on the block for sale, local schools would get a broader opportunity to pick up tools that could be used for educational purposes. Under present policies, the schools have only a limited chance—or a "second priority,"



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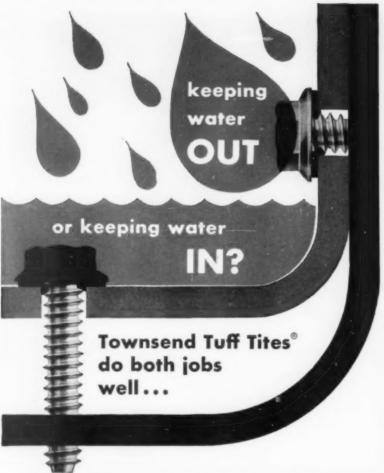
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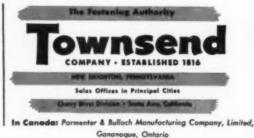


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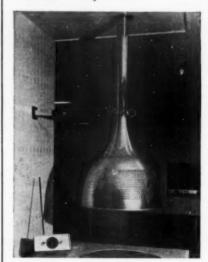


as one official puts it-to survey stocks of surplus tools.

• The national industrial equipment reserve would be enlarged to include production equipment for use in reconstruction and rehabilitation of the civilian economy after a potential enemy nuclear attack. The reserve, maintained by the General Services Administration, is now limited to tools needed for full-scale defense production. Some officials believe that many of the tools now being sold as surplus, though not in good enough shape for military manufacture, could be used for civilian reconstruction work. Instead of being sold as surplus, such tools would be stored underground for postattack use.

• Sour Note—One Pentagon official, however, injects a sour note into the proposal. Under the law governing the national industrial equipment reserve, the Secretary of Defense has responsibility for choosing the tools to be stockpiled. But, says this official, "you can't put the responsibility on the military for determining what the civilian economy would need after an attack on us."

Meanwhile, the Metalworking Equipment Div. in Commerce's Business & Defense Services Administration is pulling strings to hold down the rate of surplus military tool sales to protec: the machine tool builders. It has a say—albeit not the final one—in setting up schedules for surplus sales.



Electronic Cooking

With these Westinghouse electronic gadgets, a housewife can cook on the run—or even while shopping. The clock-like "walkie-cookie" at left will turn on the oven and regulate its heat while the housewife is downtown. The electronic cooker at right—the bell-like hood drops down on the glass fiber disc—will bake a potato in five minutes flat.



Stars perform on America's greatest "panel show" and STEWART-WARNER is there!

For more than fifty years . . . on the instrument panels of passenger cars, trucks, tractors, buses and marine craft . . . on the machines and equipment of farms and factories . . . millions of STEWART-WARNER instruments have provided the means to driving safety, equipment protection and operating economy.

Ever since the introduction of its first passenger car speedometer—in 1904—Stewart-Warner has maintained its leadership in the design and manufacture of a broad variety of electro-mechanical instruments. These include speedometers, tachometers, oil pressure gauges, air pressure gauges, temperature gauges, fuel level gauges, vacuum gauges, ammeters, and other similar measuring, counting and

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This broad acceptance — together with continuous technical development and product diversification — resulted in the sale of more STEWART-WARRER instruments during 1957 than ever before in the Corporation's history . . . providing further

evidence of Stewart-Warner's outstanding contributions to America's industrial progress.

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STEWART-WARNER, SAEAINE and WINKLER Heating and Air Conditioning Equipment;

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ALL OF THE ABOVE TRADEMARKS ARE THE PROPERTY OF STEWART-WARNER CORPORATION

DEPUTY PREMIER Mikoyan boosts Soviet trade and aid programs by playing up U.S. recession.

A new trading nation has appeared on the world scene, It's a nation with vast resources, unlimited ambitions, aggressive trade and aid policies, and an obvious inclination to take advantage of the recession in free world trade.

The newcomer is Russia-ready now, it seems, to battle it out in the world marketplace with the big industrial nations of the West. Already it is making its weight felt, both with its purchases and its sales, in dozens of markets outside the U.S. Soon Soviet exports of industrial raw materials, and even capital goods, may become an important feature of world trade.

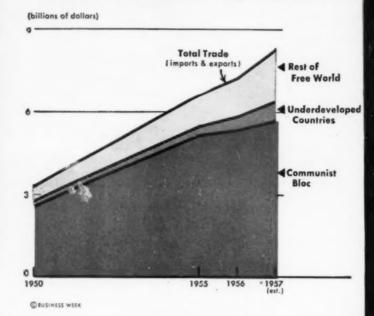
Until 1955, the Soviets still were operating pretty much under Stalin's policy of self-sufficiency, according to which the world was to be divided into two separate markets—one Communist and one capitalist. In only three years there has been a dramatic change. Soviet trade has not grown simply within the Communist bloc. It has spurted forward with most of the non-Communist world except for the U.S.

Statistically, the picture already is impressive (charts):

· Russian trade with the free

BUSINESS ABROAD

Russia's trade grows rapidly, as . . .



Soviet Union Begins

The Russians already have an established trade in the non-Communist world outside the U.S. Now, armed with surpluses of raw materials and capital goods, they're preparing to push harder.

world (including the underdeveloped countries) has nearly tripled since 1954. Last year it jumped an estimated 40%.

• Thanks largely to the Soviet economic aid program, the U.S.S.R.'s trade with the underdeveloped countries rose five times between 1954 and 1957, doubled from 1956 to 1957.

• Soviet sales of aluminum, tin, ferro alloys, oil, pig iron, and precious metals such as platinum and gold have risen sharply in the past year. Soviet gold sales probably reached \$250-million in 1957, well above earlier levels.

 Western Door-Before long you may see Russia invading the Western market for jet and turboprop airliners there's already talk in Washington of trying to head off such sales in Latin America. There may also be a big increase in Soviet petroleum exports, aided by a large pipeline now being rushed to completion from the booming Volga-Ural oil fields to Black Sea ports.

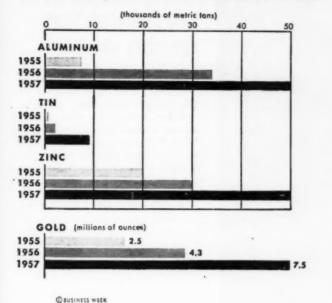
Behind Moscow's new economic offensive lies a coordinated foreign economic policy. This policy consists, as ours has since World War II, of two branches—trade and aid. Backing it up are new Soviet surpluses of industrial raw materials and even capital goods. Unlike ours, Soviet aid policy leans fairly heavily on the direct control and use of resources from a group of European satellites. These resources come in handy with the underdeveloped countries, where the political angle of Moscow's foreign economic policy is most pronounced.

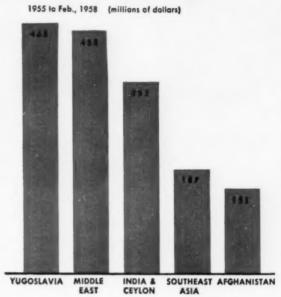
I. Trade, Plus Politics

If there's a mastermind in Soviet trade and aid, it's Deputy Premier Anastas Mikoyan (above), who has been involved in Soviet trade since 1924. But Nikita Khrushchev, newly chosen Soviet Premier, undoubtedly has had just as important a say in this field as Mikoyan. Today both these Soviet leaders are trying to give their foreign economic policy an added boost by playing up the U.S. recession.

In an election speech, Mikovan boasted about the successes of the Russian economic offensive in the underdeveloped countries and talked this way of the glowing prospects in Western

... Soviets push metal sales to West ... Extend economic aid





Invading Free World Markets

Europe: "The threat of the American crisis being transformed into a world crisis, and our successes in the development of our economy, are greatly strengthening the interest of business circles in Western Europe in developing trade with the Socialist countries.

Khrushchev, for his part, has just told the New York Journal of Commerce that American industry could eliminate its current recession "on a sound basis" if it would only trade freely with the U. S. S. R. And the Soviet Premier indicated he wasn't inclined to sit on Russia's growing stocks of gold.

· Soviet Machine-By now Moscow has an elaborate government machine to handle both trade and aid.

For its trade with the West, the Kremlin still relies largely on the Ministry of Foreign Trade and on over 20 import and export combines. Ordinarily, the goal of this trading organization is economic-to sell enough abroad to get the foreign exchange needed for imports. But the Russians don't ignore the political angle in placing their orders. For example, they have been making a play recently for closer trade ties with Britain, hoping to loosen British links to the U.S. And today, in selling some raw materials, they could be getting in a position where it would be possible to pull the rug out from under prices in some sensitive markets.

The Soviet economic aid program, as well as trade relations with the satellites, is handled by the State Commission for Foreign Economic Relations, which is currently headed by S. A. Skachkov, a buddy of Khrushchev's. The State Commission is the successor organization to the Chief Administration for Foreign Economic Relations which was founded in 1955. Commission officials head up joint economic missions to the underdeveloped countries and coordinate aid shipments from the satellites. Policy, though, is made by Mikovan and Khrushchev.

· Capacity-There seems little doubt that the Soviet Union (with the help of Eastern Europe) has the economic capacity to go on expanding both trade and aid to the non-Communist world. Even the heavy drain of resources for Red China's industrialization won't crimp Moscow's style too much.

The Soviet industrial base is growing larger year by year. Today the country has a gross national product estimated at \$175-billion, or three times the GNP of Britain or West Germany, and about 40% of ours. What's more, the Soviet economic growth rate is 6% to 7% a year, with industrial production growing at closer to 10%. Then there's the fact that except for farm products, Soviet consumers take a relatively small part of total output.

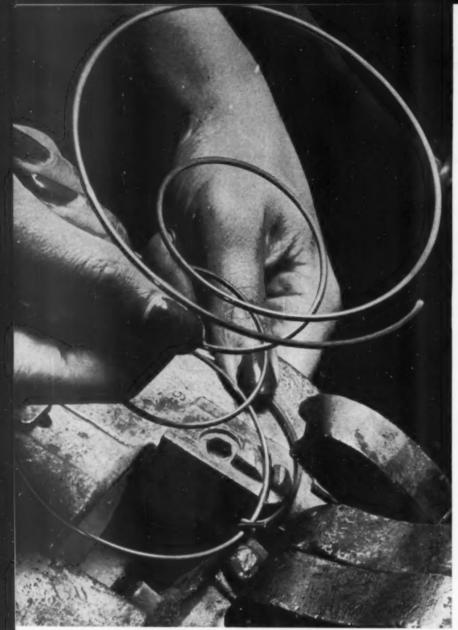
· Surplus-Probably more important for the immediate future is the fact that Russia now seems to have a substantial surplus of many industrial raw materials and of some capital goods. Apparently this is due partly to bad economic planning and partly to the revolution in military weapons.

Here's how London, which is acutely aware of shifts in trade, sizes up the situation:

Moscow's over-all economic plan has been going awry for some time. Top priority has long been given to expand-ing capacity for fuel and power, iron and steel, base metals (except copper). aluminum, plant and equipment for heavy industry, and machine tools. Growing output in all these areas has been channeled mainly into defense production and further investment in basic industry. Former Premier Malenkov, who has since become a victim of Khrushchev's rise to power, apparently foresaw two or three years ago that surpluses would develop unless more was done to create secondary industries serving consumer needs.

· Switch in Signals-What brought the lack of balance problem to a head was the big changes in defense-the shift away from conventional weapons, including bombers, to rockets and missiles. Suddenly the demand for huge amounts of steel, nonferrous metals, aluminum, and so on, for armaments has shrunk. The consumer goods industries that might have provided an alternate market do not exist.

The net result, according to London observers, is that Russian exports of



Tough test for Pittsburgh Steel's upholstery wire at Piedmont Spring Co. comes in coiling and knotting spring. Wire that is too hard will

break; wire too soft will lose springiness even after tempering. Uniform quality of Pittsburgh Steel wire insures uninterrupted production.

Pittsburgh Steel wire adds years of life to upholstery springs

Piedmont Spring Company calls Pittsburgh Steel uphoistery wire "Best we've ever seen"

Pity the poor upholstery spring . . .

It goes through the most torturous stresses and strains just getting made. Then, fully formed and ready for use, all it can look forward to are years and years of supporting tons of jumping, running, standing, sitting or just-lounging human weight.

If that upholstery spring is unappreciated, then consider how underrated its wire can be. You have to be a veteran upholstery springmaker to know what it takes to make a first rate spring that can outlast the furniture it serves.

Such men are Bill and Bob Gaston of Piedmont Spring Company, Hickory, N.C. They choose only superior quality wire—like that supplied by Pittsburgh Steel Company. During their 31 years of combined springmaking experience, the Gaston brothers have seen just about every twist and turn there is to springmaking. Bill Gaston, who handles purchasing, sums up Pittsburgh Steel upholstery grade wire this way:

"Pittsburgh Steel wire is the best we've seen anywhere. And I'd tell that to anyone. It's exactly what a manufacturer needs in this business. We get uniform quality in every shipment."

Combination of quality Pittsburgh Steel high carbon upholstery wire and precision springmaking gives Piedmont upholstery springs enough liveliness and durability to serve several generations of furniture owners.

Liveliness—a must in an upholstery spring—can be seen when the finished spring is compressed. If it springs back to within one-quarter of an inch of its original length, say nine inches in a frame spring, then it has the quality to take years of hard use.

Upholstery wire from Pittsburgh Steel also must be able to withstand severe deformation during coiling and knotting.

Proper grain structure is another must. Too hard—the wire will break, scrapping an entire coil. Too soft—the wire will coil and knot easily—but it will be lifeless even after tempering. Plant Superintendent Bob Gaston cites another all-important requirement:

"The wire we use must have uniform diameter—only .001 variation plus or minus allowed up to .075-inch and .002 variation for .076-inch and larger. If the wire didn't meet our close tolerances, it would seriously damage our coiling machines and stop production. And you know what that does to costs and lost orders. But there's no worry there with Pittsburgh Steel wire."

Piedmont Spring also uses Pittsburgh Steel's border and brace low carbon wire for edgewire frames that hold cushion springs. This wire must be able to withstand crimping and bending and have enough stiffness to support the finished unit. High carbon upholstery grade wire—.047 to .155-inch diameter—is transformed into cushion, back and frame springs. Lacing wire is used to join springs together in cushion and back frames.

Bill Gaston gives much of the credit for his company's enviable spring reputation and low production costs to wire from Pittsburgh Steel. He states flatly:

"We've never had a complaint from a customer because of the quality of the wire. It has never failed to meet our specs."

"And there's another thing I like about Pittsburgh Steel's performance," Bill adds. "That's the service. We keep a low inventory of wire. Many times we run to the bare minimum, but we always get our shipments on time to keep production going.

"When we want to talk to Pittsburgh Steel's district sales office, we get quick attention from the district manager himself right on down.

"Our aim at Piedmont is to make only the best upholstery springs —springs that will take years of hard use without failure. And we get them thanks to the most important ingredient in a spring quality wire like ours from Pittsburgh Steel."

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Specify Pittsburgh Steel wire. Call the nearest district sales office listed at right. Do it today.



"Best wire we've ever seen" comments Bob and Bill Gaston (left and center) about high carbon upholstery grade wire from Pittsburgh Steel. The two owners of

Piedmont Spring Co. check the life in a Piedmont upholstery spring after tempering. After compression, spring must return to within onequarter of an inch of original length.



Cushion springs are joined together by lacing wire, forming the shape of a cushion frame for an upholstered chair. Piedmont springs made of Pittsburgh Steel wire take years of hard use.



Baling for shipping, Piedmont upholstery springs are compressed to save space. Bill Gaston says, "We've never had a complaint from a customer because of the quality of the wire."

Pittsburgh Steel Company

Grant Building

Pittsburgh 30, Pa.



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many raw materials and some capital goods will become an important factor in world markets. Although the Russians can be expected to use their surpluses on occasion to make political capital, they don't seem to have a calculated plan to upset Western markets. At the moment at least, they seem to be trying to exchange basic materials against plant and equipment for consumer goods industries-though, at the same time, the Russians are selling machine tools in Western Europe. (In the early 1930s, Stalin ruthlessly sold badly needed Russian wheat and timber to finance imports of industrial equipment for his first Five-Year Plan.)

II. Metals Lead the Way

So far there is no standard pattern in the way Russia is selling commodities in Western markets. In the case of oil and pig iron, the two big commodities, the Russians have made no attempt to undercut prices or play politics. Sales are by negotiated contracts, and deliveries have been satisfactory. On the other hand, sales of aluminum have been made in Britain for several months now at well below the price of Canada's Aluminium Ltd. This was one of the factors in Aluminium's decision last week to cut its price. But officials of the Soviet trade mission in London have recently told several British companies that Moscow is ready to supply any quantity of aluminum ingots "at 10% below the market price, whatever it is."

· Steady Stream-Other Russian sales are made in the organized markets of Britain and Western Europe. Recently tin sales have been fairly substantial on the Continent and one type of Russian tin has just been accepted on the London Metal Exchange. In the case of tın, Russia deals either through its own trade officials abroad or through Western dealers. Sales of gold are being made now through a Paris bank that is associated with Moscow, though gold shipments go directly from Moscow to the bullion markets in Zurich, Paris, or London. Platinum is sold by Soviet officials to precious metal dealers.

The most recent Russian offers include asbestos and even some copper, though Russia was thought to be desperately short of the latter. Some Canadians are expecting early arrival of Russian nickel on Western markets, again as a result of the arms revolution. Recently in London one Canadian said privately: "These metal sales from the East are serious for Canada. If they should become large they might affect plans for the development of Canadian mineral resources, on which much of Canada's future prosperity was to be based."

· Smartening Up-In buving commod-

ities, the Russians used to be very clumsy. By sending untrained officials into the markets, they sometimes pushed prices up against themselves. Today, they usually employ Western firms to buy for them, though bulk purchases of things such as Ceylon rubber and Cuban sugar normally are made direct by Moscow. According to British and European traders, the Russians are adapting themselves to Western commercial practices with real success.

Generally British and European businessmen find trading with the Russians fairly easy. The state trading depart-ments are staffed with highly trained English, French, or German-speaking people who haggle fiercely, but stick to contracts once they are signed. The only real trouble is that Soviet orders are often small-really sample or pilot orders for special machines that lead to nothing until a Soviet imitation turns up as a Moscow export. That's why some British and European companies won't supply Russia today except on very large, firm contracts. This Soviet practice is bound to limit East-West trade even if Western controls are relaxed this summer (BW-Mar.15

When the Russians order industrial plants such as the tire plant equipment which they are now buying from a British consortium, they take their own sweet time. Technical officials, knowing their textbooks backwards, pay endless visits to plants in several countries. They ask for more, and then for price quotations. They invite the suppliers to Moscow for hard bargaining—and colossal parties. In the case of the tire plant, V. Klentsov, one of Russia's top trade officials, went to Britain when the deal was almost signed to settle a few remaining points.

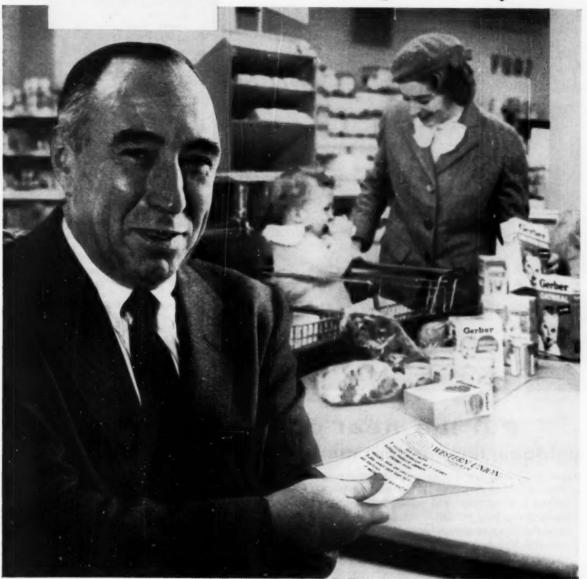
III. Dividends From Aid

The second prong of Soviet foreign economic policy-economic aid to underdeveloped countries-has increased from practically zero in 1954 to a total of \$1,618,000,000 as of the beginning of last month. In addition, the Soviet Union has given about \$400-million worth of military aid-most of it to Egypt and Svria. Bloc economic aid also has been the entering wedge for thousands of technicians sent to underdeveloped countries, and more thousands of citizens of these countries are being trained within the bloc. Of the total \$2-billion in military and economic assistance, the U.S.S.R. has put up something over half, though the satellites' role in economic aid has been somewhat larger than that of the Soviet Union. (Almost all the military aid has been of Soviet origin.)

The Soviet bloc economic offensive



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• Selective—Actually, Soviet bloc economic assistance to underdeveloped countries is smaller than these total commitments would suggest. Many of the lines of credit extend over a period of three years or more or are openended. Many of them still haven't been drawn down at all. U.S. officials estimate that not more than \$200-million or roughly 12% of bloc "aid" commitments have been expended so far.

But the effectiveness of the Sovietsponsored aid program can't be measured by size alone. The effort is highly selective. Only 13 countries have received bloc aid and over three-fourths of it has gone to only five countries— Egypt, Syria, India, Afghanistan, and Yugoslavia. This very selectiveness is what gives the program its hitting power. The Russians step in with aid to exploit political or economic difficulties in the free world—political tensions in the Middle East, the isolation of Afghanistan, or the foreign exchange crisis in Ceylon. In this way they reap high political dividends at relatively low cost.

• Drain on Soviet-Still, there's a limit to the aid Moscow can offer to the underdeveloped countries. The U.S.S.R. has large continuing commitments to the satellites and China. It has give: about \$7-billion of loans to them, and in 1956 over 90% of Soviet capital goods exports were shipped within the bloc, supplying one-half of its machinery requirements. Even at that, the Soviet Union was a net importer of machinery and equipment within the bloc, importing \$900-million and exporting only \$600-million worth. This was accounted for by satellite shipments of capital goods to China via Russia, and suggests that China's vast need for industrial equipment is and will continue to be a drain on the bloc.

In practice, the Soviets so far have been very stingy with capital goods exports to the anderdeveloped countries. In 1956, they exported only \$21-milion of machinery and equipment to the underdeveloped countries. They still are running a heavy import surplus under their aid program, and a number of countries with which they have credit agreements have become concerned over the slowness with which Russian deliveries of capital goods have been made. **END**



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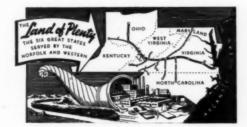
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In Business Abroad

Japanese TV, Born in 1953, Is Growing Up Fast

Japanese TV, which first went on the air in February, 1953, is now a growing industry—with 23 stations, around 1.5-million receiving sets, and sophisticated programing that runs the gamut from drama (picture) to



wrestling and baseball. The biggest network is Nippon Hoso Kyokai—a government company similar to Britain's BBC. This month 10 new stations operated by NHK and 39 new commercial stations will begin transmitting.

Though its audience is still small compared with Japan's 95-million population, the industry al-

ready is getting about \$17-million worth of ads annually from consumer-conscious businesses in Japan. One agency—Dentsu Advertising, Ltd.—handles more than half these billings.

New British Antitrust Court Gets Set to Try First Cases

Two years ago, Britain's Conservative government passed legislation to limit price-fixing agreements among British companies (BW-Feb.25'56,p160). The aim was to battle inflation and boost exports by stepping up competition at home—thereby keeping the lid on prices.

Now a new antitrust court, set up under this British Restrictive Trade Practices Act, is getting ready to try about 40 of the first cases resulting from the legislation. So far, British companies—as required by the new law—have registered 2,000 price-fixing agreements. And, in anticipation of the antitrust court's coming actions, many companies already have dissolved or revised their old price-fixing agreements.

American Can Co. Runs Into Trouble In Expanding Brazilian Affiliate

In Brazil, a golden opportunity may suddenly lose its glitter. That's what American Can Co. has discovered in trying to help its Sao Paulo affiliate—Metallurgica Elva S. A.—expand tin can production.

A month ago Canco got government approval to import machinery under regulations encouraging foreign investments in Brazil. Immediately, local can producers protested. Led by Francisco Matarazzo Sobrinho (a relative of the Matarazzos who run the huge Brazilian chemical company), they played for headlines in Rio and Sao Paulo newspapers. They claimed that by bringing in machinery under special regulations, Canco's affiliate would have a price advantage. They also claimed there are already some 20 Brazilian can-making companies, operating at only 40% of capacity.

But amidst the nationalistic shouts, two facts seem clear from market studies: Brazil now uses around 718-million tin cans yearly, and could probably absorb as many as 24-billion cans yearly within 10 years in view of the economy's rapid expansion. The expansion would include production of wax-coated fiber containers for milk, now unobtainable in Brazil, and tin can packaging of foods and juices for domestic and export markets.

Pres. Kubitschek's economic planners openly have favored Canco's entrance into the market. (Continental Can Co. already has a financial stake in Matarazzo's canning operations, plus licensing agreements—though it reportedly has kept out of the dispute.) Meanwhile, Canco—which has had smooth sailing in setting up plants and licensing deals all over the world—is sitting on the sidelines in Brazil, hoping that the soundness of its planned \$4-million investment in canning will win out over the shouts of the opposition.

West Germany Moves Into No. 2 Spot As Exporter of Manufactured Goods

In the second half of 1957, West Germany passed Britain as the world's second largest exporter of manufactured goods, according to Britain's Board of Trade. The U.S. is still by far the largest exporter of manufactured goods—with \$10.8-billion worth shipped during 1957 or 25.3% of the world's total.

For all of last year, Britain came in second—with \$7.7-billion worth of goods shipped. Germany's dollar volume for manufactured exports was \$7.5-billion. But in the last six months, Germany took an 18.4% share of the export market against Britain's 17.8%, thus moving into second place.

Business Abroad Briefs

To get inside the Common Market in Western Europe, Mine Safety Appliance Co. of Pittsburgh has bought out Auer AG of West Berlin, the second largest producer of safety equipment in Western Germany.

Indonesia's hard-hit economy suffered a new blow last week when the Indonesian army ordered Dutchowned banks to continue extending credits to old-line loan customers. Heavy withdrawals since the Djakarta government sequestered Dutch properties last December have depleted Dutch banks reserves. These banks are drawing heavily on the Bank of Indonesia which, in turn, is seeing its foreign exchange holdings disappear fast because of the civil war's effect on trade. Observers expect the new order to Dutch banks to speed up the country's inflationary spiral.



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Corporation, majority owned by Asareo, is building a deep water port and smelter at Ho, constructing a railroad up the Andes, piping water from a lake three miles high, for its mine and mill at Toquepala. Toquepala promises to be worth it. It is one of three deposits Southern Peru owns, which together hold an estimated 8% of the free world's copper reserves. Asarco seeks, mines, smelts, and refines many metals in many places. Asareo: American Smelting and Refining Company, 120 Broadway, New York.





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INTERNATIONAL OUTLOOK

BUSINESS WEEK



Russia's Nikita Khrushchev is riding high. He has become Soviet Premier as well as Secretary General of the Communist Party—a double harness that Stalin assumed in 1941.

With Khrushchev in charge of both government and party, there is sure to be more push behind Moscow's political and economic offensive against the West. The same goes for the domestic economic reforms Khrushchev launched as party secretary

On the international front, there may be more spectacular moves like Moscow's suspension of H-bomb tests (page 32). Khrushchev clearly intends to keep the West on the run. Then the elevation of trade boss Anastas Mikoyan to First Deputy Premier proves that Khrushchev means business with the Soviet economic offensive (page 98).

There's no doubt that Khrushchev has consolidated his leadership. He controls the same instruments of power possessed by Stalin—party, government, army, and secret police

But Khrushchev is not a second Stalin. He is top dog in a Communist Party dictatorship, not a personal dictator. The fact is that Stalin deflated the Communist Party, and ruled through his private secretariat and the secret police. In addition, Stalin played the party and government machines off against each other.

From the day Khrushchev became boss of the party in October, 1953, he has been building it up—and using it for his own climb to the top. Now, for the first time since Lenin, the U.S.S.R. is run by the party.

Here are some other important changes since Stalin's day:

- The Presidium no longer counts for much. The 120-man Central Committee is the center of power, and source of Khrushchev's strength.
- The Red Army marshals and the managers (especially those in the industrial ministries) have lost political influence.
- The party ranks are filled from top to bottom with men under 45—products of the Soviet system rather than the Bolshevik Revolution.
- The new regime is sensitive to popular pressure. That's largely because
 of Khrushchev's glowing promises of a better life for the Russian people.

Khrushchev already has launched two fundamental reforms in the Soviet economy—more important even than his virgin lands scheme.

In industry, he put through a decentralization scheme last year—a shift of industrial planning and administration away from the Moscow ministries to 100 regional economic councils. In doing so, he helped break the power of men like Malenkov, Kaganovich, and Pervukhin. Also, he increased the strength of the party, whose officials now run the councils.

In agriculture, he has just obtained Supreme Soviet approval for a transfer of farm equipment to the collective farms. Up to now, the partyrun MTS (machine-and-tractor stations) have rented the equipment out to the collectives, kept tab on their production. Khrushchev still expects to maintain tight party control over the collectives. But he runs the risk that the Russian farmers will use the new system for their own advantage.

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK APR. 5, 1958 depend partly on the pace of domestic economic gains, and partly on international successes. Then there's the question of whether the new regime possesses the right checks and balances for stability. In the wings and still alive are the enemies Khrushchev deposed, plus several hundred thousand disgruntled bureaucrats who have been victims of decentralization.

In London banking circles, there's excited talk about sterling—talk of amalgamating the rates for official and transferable pounds.

Some British bankers expect the two rates to be unified this year. In effect, all sterling used in trade would be made convertible at one rate, though not a fixed one.

Such a move would involve a flexible rate of exchange for Britain's currency—something that needs the approval of the International Monetary Fund. For several years, there has been support for a floating rate for the pound both in the British Treasury and in the Bank of England.

Now, London bankers feel that Britain can move from strength. They see these encouraging signs:

- British gold and dollar reserves rose in March by \$231-million, the largest monthly gain for years. The total now is \$2.8-billion.
- In 1957, Britain had a payments surplus (excluding capital account) of £237-million. Barring a drastic drop in world trade later in the year, the 1958 surplus is expected to be about £400-million (\$1.1\$-billion).
- During the first quarter this year, the value of British merchandise exports has been greater than the country's merchandise imports (not including freight and insurance). This hasn't happened since the 19th Century.
- As a trader, Britain is getting a windfall, temporarily at least, from the drop in commodity prices. London is helping many commodity-producing countries by freely releasing the sterling balances they hold in London. (This makes up for lower prices—and also helps British exports.)

Indonesia's civil war is fast fading out.

Two factors have tipped the scales against the rebels on Sumatra. They have failed to get open support from Moslem sympathizers and from Col. Barlian, who controls pivotal South Sumatra. In addition, they have not had enough military equipment to effectively battle the Djakarta forces.

The rebel government now seems to have little chance of winning its twin goals: to weaken Communist influence in the Djakarta government and to get a better economic deal for the outer islands.

Cuban rebels at midweek were intensifying their campaign to topple Pres. Batista. They stepped up guerilla attacks, virtually paralyzed transportation in the eastern provinces of Camaguey and Oriente.

The rebels got a morale boost from the U.S. where arms-smuggling sympathizers staged a hunger strike. But the rebels feared they were hurt—would lose some U.S. sympathy—because the Cuban Communist Party announced its support for them.

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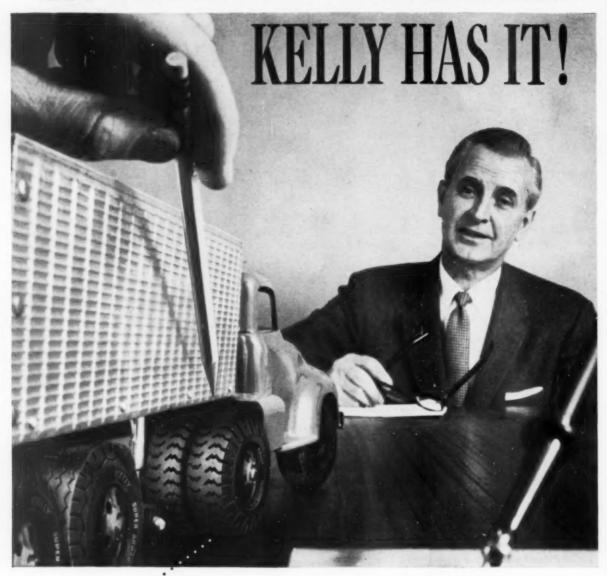


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In Washington

Joint Economic Committee Names Roderick Riley Its Staff Director

Roderick H. Riley, economic consultant in Milwaukee and formerly a government economist during the Roosevelt and Truman Administrations, took over this week as staff director of the Congressional Joint Eco-



nomic Committee. The post has been empty since last June when Dr. Grover Ensley resigned to become executive vice-president of the National Assn. of Mutual Savings Banks.

While Riley received the unanimous approval of the committee, some Republican members privately expressed concern that the naming of

a staff director who had been active under New Deal and Fair Deal Administrations might give the committee a partisan bias. However, Riley says he plans to continue with the "integrated staff" operation that served in the past under both Republican and Democratic control. Some committees operate on a more partisan basis with separate majority and minority staffs.

Riley says he intends to build on the foundation laid by Ensley and has no plans for any staff changes.

Riley, who is 49 years old, came to Washington in 1933 as a research assistant to the late Sen. Robert M. LaFollette, Jr. Later he served with the Office of Price Administration, the National Planning Assn., the Commerce and State Depts., the Small Defense Plants Administration. In 1953, he returned to Wisconsin to open an office as an economic consultant.

IRS Holds Up New Regulation On Manufacturer's Excise Tax

Internal Revenue Service at the last minute put off the Apr. 1 effective date of a proposed new regulation on the manufacturer's excise tax.

As proposed, the regulation would include in a manufacturer's taxable sales price any amount he contributes to a cooperative advertising fund used by dealers or distributors in advertising his product.

The delay gives opponents time to protest and ask for a public hearing before the regulation becomes effective, and means possibly as much as two more monthsbefore a final ruling goes into effect.

There has been much confusion over the years on the issue, with conflicting rulings issued by tax authorities depending on how each co-op advertising fund works.

Thus, some manufacturers have been told they can exclude from sales price to distributors any money they spend on co-op advertising, while others have been told they must include it for excise tax purposes.

In trying to end the confusion, tax authorities proposed a new regulation that would work this way: Assume a manufacturer offers to sell to a distributor a \$100 product for \$98—if the distributor agrees to spend \$2 out of his own pocket to advertise the product. The manufacturer—regardless of how the ad allowance is made, by discount or rebate when the advertising money is spent—would have to pay an excise tax on the original \$100 price and not on \$98.

Opponents of the proposed regulation say this might result in increased prices on such items as appliances and automobiles at a time when it is hard enough to sell them. Internal Revenue officials argue that unless the proposed change is made across-the-board, considerable revenue will be lost and manufacturers will, in effect, be able to write off much of their advertising expenses.

Government Tries Trade Shows To Stir Sluggish Local Industry

The government is turning to trade fairs to stir up work in hard-pressed labor areas. The Defense Dept. will put on a major display of some of the \$21-billion worth of hardware and softgoods it buys annually at an exhibit of business opportunities to be held June 17-19 at Huntington, W. Va. It also will exhibit the latest equipment requirements in the missile, space satellite, and nuclear reactor fields.

The idea is to show what the government is buying, then have the local industry bid for the production work. Four smaller displays were held around the country last fall. Plans call for a fair on the West Coast this fall.

The Defense Dept. alone is spending close to \$150,000 on the Huntington show; some 300 major manufacturers plan displays. Companies interested can contact the Huntington Chamber of Commerce for space.

Northwest Utility Group Makes New Try for Northwest River Dam

The Pacific Northwest Power Co. has been stymied in its proposal to build two power dams on the middle Snake River in Idaho. Now it is back before the Federal Power Commission with a plan to build a high dam at a cost of \$245-million.

Only two months ago, the commission rejected the power group's application to build dams at Mountain Sheep and Pleasant Valley on the Snake River. Instead, FPC recommended a high dam at Nez Perce, a site opposed by both private utilities and conservation groups.

Now the Northwest company has filed a new application to build a 1,520,000-kw. dam three miles below the original Mountain Sheep location.

The proposal is expected to touch off new efforts by public power advocates to win Congressional approval of a high federal dam at Hells Canyon on the Snake.

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CAB Opens Up More Sky

Newly created Florida routes put Eastern in direct competition with three other airlines. The board's action is giving the industry some qualms about the future.

This week, the Civil Aeronautics Board threw open the rich Florida market to four major airlines. It was a jolting reminder to the air transport industry that the board is sticking to the theory that there should be more competition on the nation's airways.

The jolt was especially felt by Eastern Air Lines. Three of the four newly created routes will put more airlines into competition with Eastern's fleet.

For Eastern particularly, and the industry in general, the board's action served to underscore the competitive nature of the airline business, and it provoked fresh complaints against CAB for allegedly regulating as a monopoly what no longer is a monopoly.

Here is what the board ordered:

 Delta Air Lines gets a northward extension to Detroit of its Miami-Cincinnati run.

 Trans World Airlines gets a St. Louis-Miami route.

 Northwest Airlines is authorized to serve Chicago-Miami.

 Capital Airlines gets entry to Miami from the Buffalo-Cleveland-Pittsburgh triangle.

 Eastern's Angle—All of the new runs except one portion of Capital's—between Buffalo and Pittsburgh—will supply parallel competition for service now provided by Eastern, and the Miami-Chicago route is now served by both Eastern and Delta.

Eastern's reaction to the CAB decision was predictable, especially when you consider that a short 12 years ago it was dominant to the point of virtual monopoly in the lucrative Chicago-New York-Miami triangle that it pioneered.

T. F. Armstrong, Eastern's president, promises a fight to overturn the awards as a "grave injustice" to his company. "This is a graphic example," Armstrong asserts, "of the policies instituted by the board over the years which have led to the present-day dire financial straits of the entire airline industry."

There is no charge that CAB has singled out Eastern for discriminatory treatment. Indeed, there is a logical and simple explanation for what has happened: Competitive cases have hit Eastern hardest because it held routes in the most populous sections, where air traffic has developed fastest.

 Clue to Future—What has happened thus far, it seems fairly certain, holds some hints for the future. And it explains, in part, the dilemma of the airlines at this juncture. For example, in recent days CAB has instituted a case that may very well, in the next two years, throw competition into air runs west of Texas to the Pacific Coast by creation of a southern transcontinental route from Miami to Los Angeles.

This is the last "open" area of the country, a region in which one carrier—American Airlines—enjoys predominance through absence of effective parallel trunkline competition. American is expected to oppose creation of a southern transcontinental route, and Eastern and National seem certain contenders for such a route.

Competition among individual carriers is self-evident, and it is fierce. But, as a regulated industry, air transport is at this juncture united in deep concern about the future. CAB's policy of promoting competition is only part of the cause for concern, and is hardly separable from the overriding cause—declining earnings at the threshold of the jet age, when billions will be needed for new equipment.

• Financial Note—Eventually, the story may be a happy one. But the industry's plaint is that time is of the essence, and that the board on one hand forces a competitive (and, therefore, financial) strain on airlines both big and small, strong and weak, while on the other hand, it balks at allowing fair increases the carriers feel are justified by inflation and technological improvement.

On fares, the board is under the heaviest pressure. In summary, the airlines case is this:

Domestic truck carriers have on order, for delivery during the next four to five years, about 350 propjets and turbojets that will require at least \$2-billion in new investment.

Earnings records have become less attractive while capital demands have grown heavier. In 1957, on gross revenues of \$1.4-billion, the domestic trunk lines netted only \$25-million after taxes. In 1952 they netted \$53-million on a \$768-million gross.

A case is pending before the board in which the carriers demand basic fare increases of up to 17%

increases of up to 17%.

Stuart G. Tipton, president of the Air Transport Assn., the trunk lines' trade group, told a Congressional committee recently that the real need is for a new, modern rate regulatory philosophy, giving "far greater scope to competitive forces and far less to police the monopoly concepts."



WINNER in Pabst Brewing Co. proxy fight this week is Harris Perlstein, board chairman and president.



LOSER is Otto L. Spaeth, who teamed up with other members of the original owning families for the fight.

Inside Story of Pabst Battle

Management claimed victory this week in one of the year's hottest proxy fights, settled at the annual meeting of Pabst Brewing Co. in Chicago. At midweek, proxies were still being counted—and challenged by both sides—but the opposition group privately conceded defeat by a narrow margin.

Harris Perlstein (picture), chairman and president of Pabst, said he was looking for a new president for the company, but he ruled out any compromise with the dissident group, which was headed by Otto L. Spaeth (picture) and other members of the original owning families.

• Big Job to Do—The winning side faced one sobering problem amidst its victory cheers—by the nature of the fight, the winner is committed to reviving a company that has been ailing for a long time. And the job may not be easy if bitterness lingers among the owners.

In 1949, Pabst ranked second in the industry in sales volume; it shipped 4.5-million bbl. of beer. Last year, it dropped to eighth place, with 2.9-million bbl. shipped. In 1949 to 1957, by contrast, Anheuser-Busch rose from 4.5-million to 6.1-million bbl., Schlitz from 4.7-million to 6-million.

and fast-coming Falstaff from 1-million to 3.4-million bbl. of beer.

In 1949, too, Pabst was the best money-earner in the industry. Last year, though, it ran up a \$2.9-million loss. From a high of \$4.25 per share in 1949, earnings dropped through the zero level to a 70¢-a-share deficit last year. Market value of the stock sagged from \$30 to below \$6-a paper loss of \$99-million to the stockholders.

Important groups of holders demanded a change in leadership. The established management resisted. That's what the proxy fight was about.

• Showdown—The power struggle broke into the open on Mar. 3 at a chilly meeting of 10 Pabst directors in the company's boardroom in Chicago. With a three-hour break for dinner, the meeting lasted from 2 to 10:30 p.m.

David and Robert Pabst were the only directors present from the rebel group. David Pabst voiced his side's demand for eight of the 14 seats on the board; management countered with an offer of six. All through the debate, David and Robert Pabst took turns stepping out of the room to confer by phone with an eight-man committee.

When both sides proved adamant, the deluge of letters to stockholders was released and Pabst hit the news.

The Pabst company owns four brewcries and Hoffman Beverage Co., makers of soft drinks. It was formed through merger of Pabst Co. and Premier Malt Products Co. in 1932, just before repeal of Prohibition.

I. Seeds of Battle

This merger looked like a good idea: Premier had cash and Pabst the facilities to take advantage of repeal. But it turned out to have brought this week's clashing elements together.

Otto Spaeth was one of the founders of Premier, and the Spaeths still controlled it at the time of the merger. Harris Perlstein had worked with Premier as a chemist and had been boosted to the presidency by Spaeth. Otto and his brother Bernard arranged for Perlstein to be president of the merged corporation, and they supported him in clashes with Chmn. Fred Pabst.

• 17-Year Honeymoon—For 17 years, the company expanded facilities, built up sales, and pushed toward the top in the industry. Then profits started to drop. This brought Otto Spaeth back into action—he had left the beer business to make a million of his own in





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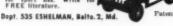
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building up and selling off several small companies. Now he came back to clash not only with Perlstein but also with his brother Bernard, who was still on Pabst's board.

Otto Spaeth held that a buyer's market in beer had arrived, that the company should shift emphasis from production and distribution to a harder merchandising effort. Perlstein, he said, wasn't the man to preside over such a change. Bernard Spaeth, on the other hand, remained for years a close friend and firm supporter of Perlstein and the established policy.

II. Turning Point

Early in 1956, seven years of decline were enough to arouse the board of directors to the need for a management change. Perlstein was persuaded to move up to a new spot with the title of "chairman of the company" and to pick a successor. The choice fell on Marshall Lachner, marketing vice-president of Colgate-Palmolive Co. Lachner arrived in April, 1956, at a salary of \$100,-000 a year.

However, the new broom found little room in which to swing. By the company by-laws, Perlstein still had general supervision and veto power over policy.

• New Alignment—While Lachner struggled to reverse the company's downward course, Bernard Spaeth, a member of the executive committee, became increasingly critical of management and increasingly close to the opposition headed by his brother Otto and by the sons of Fred Pabst.

The break came cleanly a year ago when he was deleted from a new executive committee headed by Perlstein. By this time, the rumblings of a battle for power could be heard, and both sides gathered their forces.

Perlstein found new allies at Bear, Stearns & Co., where Donald Lillisnow on his board and also chairman of National Can Corp., a major Pabst supplier-is a partner. Late last summer, Perlstein began recommending to stockholders that Bear, Stearns was a buyer for any shares they didn't want.

The rebels, meanwhile, were hit by illness. Bernard Spaeth became inactive (he died in January), and Otto Spaeth could speak only in a hoarse whisper after a laryngotomy. He had to come out of semi-retirement to develop a program for the rebel cause. It centered around the search for a management man of undoubted stature.

III. The Steele Business

At this point, Alfred N. Steele, chairman and chief executive of Pepsi-Cola Co., came into the picture. Last September, a friend suggested to Otto Spaeth that Steele might be the market-



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ing-minded executive he was looking for. Spaeth approached Steele and, on a mid-September evening at his New York City apartment, introduced him to

the other rebel leaders.

The dissidents reportedly said they thought they had enough strength to put him into company office without a proxy fight, but Steele said he was happy at Pepsi-Cola. He reportedly suggested that he and one or two associates, such as Bernard Relin, a New York public relations man and Pepsi bottler, might go on the Pabst board to help in marketing problems.

The Spaeth-Pabst group agreed, and several more meetings were held for

discussion along this line.

· Lachner Ousted-Meanwhile, Lachner worked on building up marketing staffs and local promotion aids for Pabst distributors, but costs rose, sales didn't. In October, with board approval, opposed only by Robert and David Pabst, Perlstein removed Lachner as president and took over the office himself. Lachner received a contract for \$240,000, payable monthly over the next five years. Proviso to the contract: He pledged to say or do nothing that would injure the reputation of the company, its officers, its directors, or its principal employees.

To date, Lachner has remained silent despite attacks on him in proxy letters.

• December Crisis—When a company

director died, the rebel group-allegedly at Steele's suggestion-nominated Relin for the vacancy. At the December board meeting, the proposal was slapped down, and the rebels soon dropped their talks with Steele. Pepsi-Cola, though, was interested in merger with Pabst. The rebels were not, so Pepsi people began talking merger with Perlstein. These talks went on until the fight broke out.

IV. A Hot March

Before the Mar. 3 showdown meeting of the directors, the dissidents had lost both Bernard Spaeth and 88-year-old Fred Pabst by deaths a few weeks apart. But they didn't want to delay for they heard that Bear, Stearns had picked

up 400,000 shares and was still buying. On the night of Mar. 3, after its rebuff, the Pabst-Spacth group put its first proxy letter in the mail. But management's letter to stockholders was in the mail hours earlier and reached stockholders one delivery ahead of the Pabst-

Spaeth letter.

Management remained on the offense during most of the campaign, firing at Relin (Steele's associate) as one of "a New York group" that was infiltrating the rebel camp. It also stressed the experience of its own slate and challenged the rebels' lack of expert management or a positive program. Pabst salesmen, as solicitors under 15 team leaders, visited all holders of 100 or more shares, and top executives called on owners of

key blocks.

Perlstein's support centered around a core of 14-million out of 4.1-million shares outstanding. Around 1-million shares were distributed among 6,000 shareholders, while the Spaeth-Pabst group controlled the residual holdings of the original owner families.

· The Widow Vote-Among the remaining stockholdings are three blocksof 140,000, 35,000, and 25,000 sharesthat are owned by widows of key emplovees. These widows, all living in California, could conceivably cast the deciding votes. So Otto Spaeth flew to California on Mar. 12 to see them.

Ironically, these blocks of stock, and at least one other of 90,000 shares on management's side, had been created while Spaeth controlled Premier Malthe had urged key employees to buy shares and had, in some cases, lent them

money to do so.

However, management got to California first. When Spaeth arrived, the holder of the 140,000-share block at first refused to see him. The best he could do, in the end, was to get a halfpromise to remain neutral for the time being. He presented his arguments to the other two widows, then hurried back East to shore up a weak point in the rebel front.

• Enter Toigo-To answer management's charge that the dissidents lacked a management candidate or constructive program, Spaeth looked for a standard-bearer. He found one in John Toigo, talented but temperamental advertising specialist at Jos. Schlitz Brew-

Spaeth had admired Toigo's advertising campaigns, which had helped pull the company to the top of the industry. He found Toigo restless at Schlitz (and reportedly under fire, with his advertising ideas being altered by others) and willing to run as the rebels' candidate for president of Pabst.

The Spaeth-Pabst group showed him a chance for more freedom and for a fortune in stock options if he could turn the company to an upward course. If the revolt should fail, they assured him of backing as a private consultant.

In mid-March, Toigo plunged into the battle of the proxies, drawing the expected fire from Perlstein.

• Post-Mortem-After the votes were counted, Spaeth commented: "They spent company money to fight us. We had to use our own. Perlstein promised a new president for the company, but we doubted he would let an effective one take over. Now we'll have to see what happens.'

One still strong possibility for Pabst: eventual merger with still interestedand highly profitable-Pepsi-Cola. END

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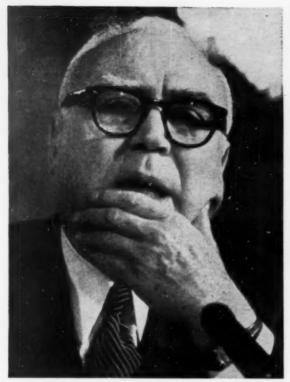
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HERBERT KOHLER told senators probing Kohler-UAW strike that the union tried "to strangle the company into submission,"



WALTER REUTHER, UAW head, retaliated that the company refused to bargain in good faith and was bent on breaking the union.

Kohler Hearings End in Discord

Principal witnesses blame other side for bitter labor dispute. Disgusted at "waste of time," McNamara quits committee.

The McClellan committee ended five weeks of hearings on the four-year-old Kohler Co. strike last week, after taking testimony from two of the principals—Herbert V. Kohler, president of the Wisconsin plumbingware company, and Walter Reuther, president of the striking United Auto Workers. Only tangible result of the stormy hearings has been the resignation from the committee of Sen. Pat McNamara (D-Mich.), who called the proceedings a "waste of time."

This week, the Senate investigators turned their attention to a UAW dispute with the Perfect Circle Corp.

• McNamara's Defection—In quitting the bipartisan body, McNamara explained: "The Kohler hearings demonstrated that I could spend my time more profitably on other committees. I have more important things to do, comparatively, than waste my time on that committee."

A week before, McNamara refused to

sign the McClellan committee's interim report. In the lone dissent, he charged "over-all anti-labor bias" exists in the body (BW-Mar.29'58,p107).

 Kohler vs. Reuther—The testimony of Kohler and Reuther brought the committee's first probe into a labormanagement strike to an end.

Kohler, first to appear, said the company has "at all times bargained in good faith," and denied that it ever or in any way engaged in improper labor practices. Kohler did not "get involved in so serious a conflict for trivial reasons," he said, and singled out UAW pressure for "compulsory unionism" as one of the basic principles involved in the dispute. Despite "illegal" union activities and efforts to "strangle the company into submission," he said the company has won the strike—UAW no longer represents Kohler employees, so, Kohler said, it now would be "illegal" to sign a UAW contract.

Reuther criticized the company and its officers for an "illegal" determination to break UAW, and for a "refusal to bargain in good faith." He described Kohler's labor relations policies as "a part of yesterday," and criticized its use of "strikebreakers" and "company spies." And Reuther charged that

Kohler "prepared for war" by accumulating a "large arsenal of weapons."

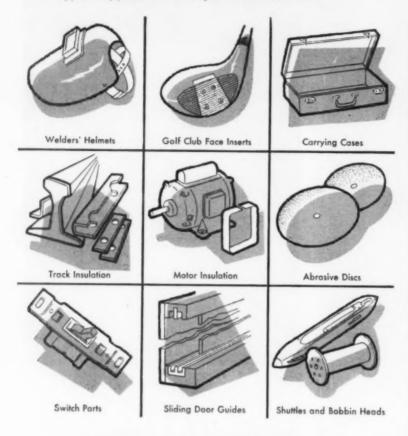
The auto union head and Republican members of the committee—particularly his old antagonist, Sen. Barry Goldwater of Arizona—engaged in both polite and heated exchanges. Reuther charged a Republican "design" to destroy him. And Goldwater criticized the UAW head's "economic and political philosophy," and said he is "more dangerous than the Russian Sputniks."

Before the hearing closed, the Mc-Clellan committee's chief accountant praised UAW's financial safeguards and Reuther's fiscal honesty.

Sen. Karl Mundt (R-S.D.) said that he, personally, had found (1) "no evidence of corruption" in Reuther's testimony, (2) indications of "some effective steps" against Communism in UAW, at the international level, and (3) "no evidence of racketeering."

He noted that while UAW's democratic procedures are "pretty effective," it is "a little bit un-American in using members' funds for political purposes." Mundt also said he found definite signs that the union's conduct in strikes "is not as good in recent years as you [Reuther] indicated in your statement." END

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Three at a Time

UAW talks contract with GM, Ford, and Chrysler simultaneously. It may help the union—or hurt it.

American Motors Corp. this week asked the United Auto Workers for a wage freeze in its plants to give the auto Big Three time to catch up to what it called the "higher labor costs of the independents."

AMC urged UAW to maintain present wage levels until June 15, 1960–a two-year extension of its contract rate. This would mean no 6¢ to 8¢ improvement-factor raise either this year or next. Also, the auto maker asked for a suspension of cost-of-living adjustments until mid-1960.

American Motors' surprise demand on Wednesday was accompanied by a claim that the \$3.07 average hourly wage at AMC's Kenosha (Wis.) plant is higher than that of any of the Big Three. The independent contends it must have "relief from this competitive disadvantage."

• One Against the Other—Meanwhile, UAW was negotiating at midweek with all of the Big Three. For the first time, it was bargaining simultaneously with all major companies, instead of concentrating on one at a time.

Under such a policy, UAW can try out different combinations of demands on each of the Big Three—to probe for the area of least resistance. And it may be able to capitalize on each company's competitive fear of the others.

But there are dangers for the union, too, if the companies form a bargaining "front" or agree to swap information. Ford's industrial relations vice-president, John S. Bugas, said this week that his company, for one, believes in better "coordination" on bargaining among the major companies.

• No Histrionics—As expected, no stirring declamations were made by anyone at the opening of contract talks. The participants are now so accustomed to dealing with each other (BW—Mar.22 '58,p86) and intensity of purpose is so accepted that banter and feigned boredom substitute for histrionics.

Reuther, as he finished reading a statement before television cameras, grinned across the table at Ford's M. M. Cummins, assistant general industrial manager, saying, "Same old record, eh Mike?" And Cummins answered, "It sounds familiar, Walter."

After the camaraderic for the reporters and the cameras, the secrecy policy that usually prevails went into effect at all three companies and in UAW's Solidarity House. END

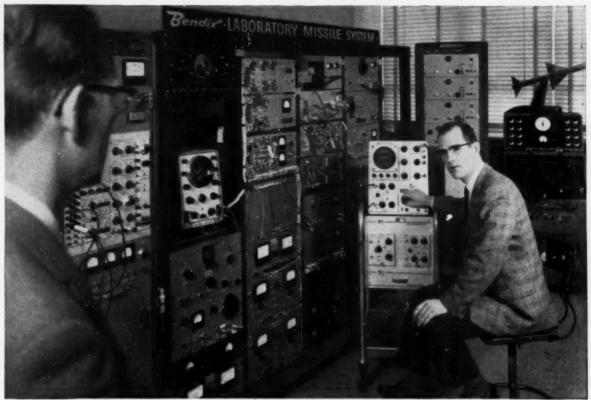


Photo shows test of a missile guidance system under simulated flight conditions at Bendix Research Laboratories Division.

BENDIX "FLIES" MISSILES IN THE LAB— SAVES YEARS OF TIME AND MILLIONS OF DOLLARS

Missiles cost big money—there's no avoiding that fact. But Bendix research has helped shorten development and production time and has saved millions by designing several specialized devices called Missile Flight Simulators for advanced scientific testing.

It not only takes a lot of time to test a missile by actual firing, but it is wasteful to fire without having previously evaluated every phase of engineering design to minimize failure of these unbelievably complex space vehicles. Thus in determining guidance system performance, for example, as many as 200 "ground flights" can be made in a day on Bendix Missile Simulators. Every reaction of the system is recorded on tape so that experts can study instant-by-instant performance

under varying conditions. Missile speed, space orientation, wind characteristics, range and speed of the target are simulated and related mathematically within analog and digital computers to provide realistic flight conditions.

Research and development are among the many important activities of Bendix in the missile field. In addition, Bendix has engineered, developed and manufactured many of the major systems used in key missiles as indicated in the illustration at the right. Bendix also builds the surface-to-air Talos missile for the U. S. Navy. It will be the major armament of the U. S. cruiser "Galveston" and will also be installed on a number of other cruisers including the nuclear powered "Long Beach".

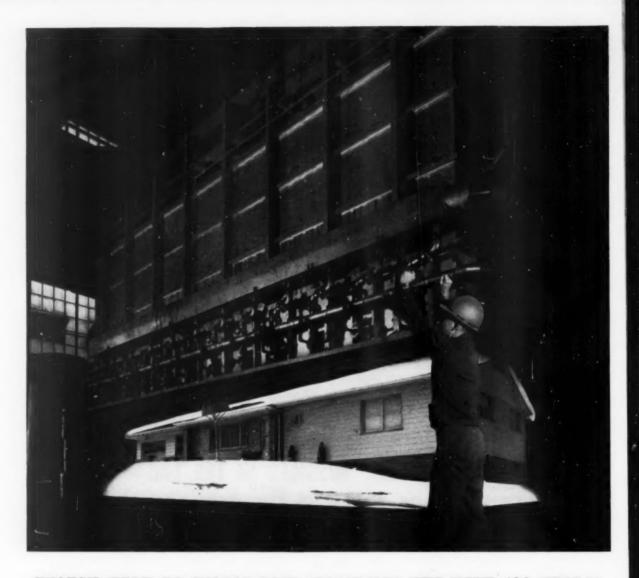


Bendix furnishes major elements for missiles of all types. This illustration represents no particular missile, but shows the general location of various airborne Bendix systems and their components. In addition, Bendix produces the Ground Support systems indicated above.

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a million ideas



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In Labor

UAW Chalks Up Financial Gains Despite Last Year's Drop in Membership

The United Auto Workers' average membership in 1957 declined 5,052 from that in the previous year, to 1,315,461 dues payers. But, despite the loss caused by the tightening national economy, UAW financial reserves made strong gains.

The union's net worth on Dec. 31, 1957, was \$35.7-million, including \$24.4-million in liquid assets—a

\$1-million gain.

Its strike fund—an issue in the Senate investigation of the UAW strike against Kohler Co.—totaled \$24-million at the end of 1957, an increase of \$1.6-million.

UAW contributed \$3-million to help members of 118 locals involved in strikes in 1957. A large part of this went to the Kohler Co. local, at Sheboygan, Wis., which is still aiding 250 to 300 of the 2,500 who struck in 1954. Most of the others have found new jobs.

UAW's strike fund disbursed \$9.3-million in 1956; \$11.5-million in 1955; and \$4.3-million in 1954—the other years of the Kohler strike. Strike costs were con-

siderably smaller in the years before that.

The auto union strike fund is now being bolstered under a "crash program" that calls for \$5 a month in extra dues in March, April, and May. But because of heavy auto layoffs, the money to cushion UAW members against a big strike this year isn't coming in so fast as expected.

Steelworkers Will Make a New Try To Bring VFPC Group Into the Fold

The United Steelworkers last week mapped plans to concentrate this year on "substandard" contracts covering 51,600 members in valve, fittings, pump, and compressor industries—the "VFPC group," as the union calls it.

USW's goal is to bring contracts of this group up to basic steel standards. In the past, employers in the VFPC industries have strongly resisted USW efforts to

bring them under "Big Steel" patterns.

Basic steel and can contracts are generally standardized now. They run to 1959 and provide for uniform wage, fringe, and supplementary unemployment benefit concessions to employees. But, so far, the uniformity hasn't reached the VFPC group. For instance:

- There is no single expiration date: Contracts of the 118 USW locals in this part of the industry expire around the calendar—many this year, some next. In 1958 bargaining, USW hopes to bring 80% of the VFPC group into a "target time" of late-1959 expirations.
- None of the VFPC contracts contains a supplementary unemployment benefits plan now. USW wants SUB in all pacts.

• Only one VFPC agreement contains a cost-of-living "escalator" clause, a standard part of USW contracts. The union plans to make this a bargaining "must."

• By USW standards, VFPC wages are "way behind."
Only three contracts have a minimum wage equal to basic steel's \$1.89 an hour. So USW wants a 27¢ raise.

Before USW can gain any substantial ground toward VFPC uniformity, it will have to organize a solid front of its 118 locals in this part of the industry. It hasn't been able to in the past.

NLRB Spells Out the Rules

Governing Maintenance of Hiring Halls

The National Labor Relations Board this week supplied a precise set of terms under which a lawful hiring hall can be maintained.

"Unfettered union control over all hiring" will not be tolerated, the board says. But it adds that it will not bar hiring halls where employers and unions agree:

• "Selection of applicants for referrals to jobs shall be on a nondiscriminatory basis and shall not be based on, or in any way affected by, union membership . . . or any other aspect or obligation of union membership, policies, or requirements."

· "The employer [shall retain] the right to reject

any job applicant referred by the union."

Both union and employer must post "all provisions relating to the functioning of the Liring arrangement"—including an explicit statement that union membership is not a prerequisite for referrals.

The NLRB reaffirmed—and toughened—its position against closed-shop hiring halls several weeks ago, in a test case involving the Hodcarriers and the Associated General Contractors, Inc. (BW—Mar.8'58,p109). The board's advice on how to maintain legal hiring halls is in its formal opinion on that case, just released.

The impact of the stiffened policy will be heaviest in the construction industry and on the docks, the principal areas in which the hiring hall is still used extensively under fairly liberal interpretations of the Taft-

Hartley Act.

Death Doesn't Cancel Vacation Pay Of Worker Who Dies During the Year

A paid vacation is the same as earned wages. If an employee dies before taking it, a "money obligation" to

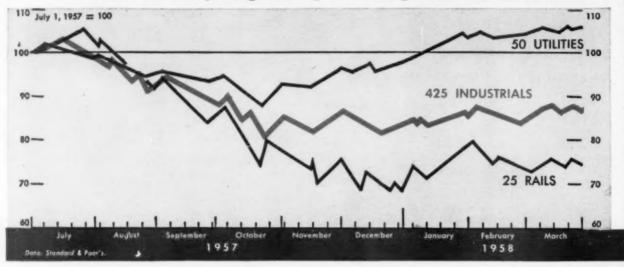
his heirs must be recognized.

A seven-member panel operating under the National Railroad Adjustment Board laid down that principle in Chicago last week. It ordered vacation money amounting to about \$460 each paid to the estates of three Eric RR employees who died before taking three-week vacations due them.

The carrier argued that the vacation clause in its contracts applies only to living employees, not to those who may have died during the year. The panel disagreed. The decision is expected to be precedent for claims

The decision is expected to be precedent for claims processed by other unions, outside the railroad industry.

Stocks show surprising stability and strong resistance to a decline . . .



The Pros Can't Agree on

What has kept stock market prices

That's a question that Wall Street professionals have been asking themselves since the deepening of the business downturn. Most stock market analysts, surprised at the depth of the decline in business, are even more astonished at the resistance shown by the market (charts). Even this week, when the over-all averages weakened, the experts were uncertain whether it meant a temporary relapse or the beginning of a long-delayed downward adjustment.

The experts are divided because of the market's performance since last July. From mid-July to mid-October, the averages dropped almost 20%-the most rapid and steepest decline in the postwar period. But in the past few months, despite the developing decline in business, the stock market has recovered

some of its losses.

• The Split-To some experts it spells basic strength that is unlikely to be hurt by a continuation of the recession; to others, it is only a technical strength that will give way to another decline.

But while there is a real doubt about the future of the market, most experts agree on some of the factors that have held the market up. They all point to the buying power of institutional investors-mutual funds, pension funds, life insurance companies, and bankmanaged trust funds-which has continued despite the business decline. In fact, brokers report an increased wave of institutional buying each time the market shows signs of weakness.

While institutional purchases have

remained high, there have been a number of shifts in their selections. All during the boom, the institutions were the biggest buyers of the blue-chip growth stocks-the petroleums, chemicals, and metals. With demand far greater than supply, these stock groups registered greater gains than most other issues.

Now, many institutions are buying defensive stocks-utilities, chains, food processors, drugs. As a result, these have enjoyed big price increases, while the growth stocks have

shown sharp declines.

Such declines have caught many of the institutions themselves. Douglas J. M. Graham of R. W. Pressprich & Co. reports that "most of the trusts were not defensively minded" in the latter stages of 1957. It is only in the last few months that the switch to defensive issues has shown up.

· Fluctuations-This switch in stock preferences has helped maintain the averages while masking severe fluctuations within specific stock groups. Metal and mining stocks, for example, are down 25% from July; railroad stocks show a 25% drop in the same period, and chemicals have slipped 15%. On the other hand, utilities are up almost 56%, tobaccos by 23%, and food chains by 24%

The significant point, say brokers, is not what the institutions are buying, but that they are still heavily committed to buying stocks. As one broker put it, "My institutional customers believe that equities are still the best bet against a resumption of inflation. And the way they are sticking to stock shows that they are more worried about long-term inflation than this short-term deflation."

· Yield Spread-This attitude of institutions is what keeps the vield spread between stocks and bonds narrow. Ordinarily, stocks command a considerably higher yield than high grade bonds. Last summer, when the squeeze on credit was tightest, the differential between stock and bond yields vanished.

The gap opened again with the decline in the stock market and the easing of credit, but analysts consider that the present differential is much smaller than normal. Traditionally stock yields are 1% to 1½% above bond yields. Now, the difference is less than 1%, even though credit is much easier than it According to technicians, the yield on stocks is low, relative to bond yields, because of the heavy favoritism for equities displayed by institutional buyers who might be expected to be in the bond market.

· Tagging Along-The institutions, of course, are not the only factor in the market. But a lot of individual investors tend to follow the pattern they set. "It's easy to make a sale," one broker admits, "if you tell a customer that the institu-

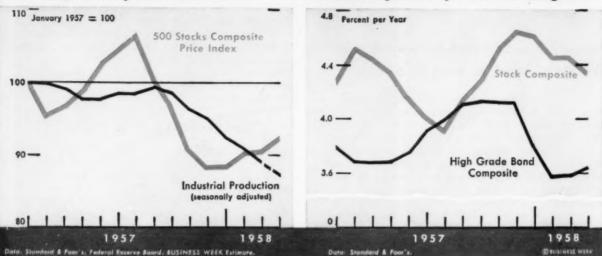
tions are buying."

In any case, many individuals share the inflation fears of the institutions. These fears, say brokers, are actually being strengthened by the decline in business because it strengthens the possibility of government action. "The market today has discounted a tax cut, increased spending and a whopping deficit," states one analyst. why the stock market has held up.

But a good many professionals are doubtful that either the institutions or

... despite drop in business ...

... relatively small yield advantage ...



Holds the Market Up

individuals are prepared for a steady diet of lower earnings—and lower dividends. Yet many analysts contend that this is in prospect even if there is a tax cut. In particular, they cite the fact that though growth stocks are down from their highs, they are still selling at very high price-earnings ratios.

According to Spencer Trask & Co., "current market prices in many instances are ignoring the present sharply reduced level of earnings." Brokers feel that investors who bought stocks in the expectation of earnings are unlikely to stick if earnings fall sharply. So despite the buying of the institutions, many brokers are telling their customers to hold back on purchases.

For example, Bache & Co. advises its customers that "the present level of security prices does not appear to be realistically reflecting the current rate of corporate operations. This level thus appears to offer an excellent opportunity to prune weaker holdings." And Moody's Stock Survey reports "that since the general market level does not look really cheap, and since the outlook is still beclouded, we would maintain a waiting policy for the present, buying only selectively and cautiously."

• Earnings—There's considerable doubt about what investors will do if earnings do not meet their expectations. So far, report brokers, stocks remain a favored investment medium. But if stock earnings are unable to justify the present level of stock prices, then a new sell-off may come.

But this is not yet happening. And many professionals believe that it is not likely to happen unless business goes into a prolonged slump. "The public has been sold on common stock," explains one investment man. "They've got the habit and it will take some really rough economic weather to get them out of it. The same goes for institutions."

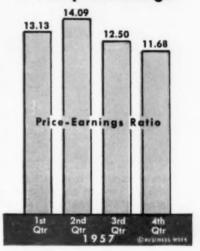
Institutional investors have a steady stream of funds to invest, and so are a potent factor in keeping the market up. Heavy institutional buying is a postwar phenomenon, and according to some experts, makes the current market very different from the prewar market. "You can't say that the institutions are always going to be buying," says one broker, "but there's no sign that they have soured yet."

• Encore of 1953—A lot of institutions feel that the market is repeating its 1953 performance, when it declined before the drop in business was fully evident, and recovered well in advance of the upturn. For the most part, brokers say that both institutions and individuals are disregarding the fact that this may prove to be a more serious decline. "They're buying in hopes we will see a new bull market," says one broker, "and that's a really dubious hope."

While general economic news has been gloomy, most stocks have yet to reflect the downturn. The railroads are the only big group that provides month-to-month figures on their earnings, and they show a huge decline for the first quarter of 1958. But soon earnings reports for other groups will be coming in, and most of them will be down. That will be a testing time for investors—both individuals and institutions.

If the market can resist a downturn

... drop in earnings



when earnings show a decline, then a new bull market may get under way. But most analysts think that the October lows will be tested—and a number say that the old resistance level will be broken.

Some brokers insist that it would not take selling to bring about a market drop—merely a decline in buying. It appears clear from examining the performance of individual stocks that some of the most severe drops have come from a lack of buyers rather than a wave of selling. As one floor-broker puts it, "we're operating in a thin market, and when buying dries up, a stock will fall."

Since October, the market seems to find buying support when it drops within range of its 1957 low and selling when it recovers about 40% of its loss. Most analysts consider that the real test will come when the market approaches its old low again. END

In the Markets

Treasury Puts 58-Month Maturity On 25/8 Notes to Raise \$3.5-Billion

The U. S. Treasury, announcing that it would not come to the market for new cash again in this fiscal year, sought to raise \$3.5-billion this week with an offering of 2\(\frac{1}{6}\)% notes that will mature in four years and 10 months.

In making this offering, the Treasury departed from its practice of offering long-term maturities. A Treasury spokesman denied that the new issue reversed the policy of stretching out the debt, but the money market is convinced that "the heat is off" the long-term market.

Up until now, the Federal Reserve's easing of credit has not had much effect on the long-term capital market. Partly, this was because demand for capital has remained strong. But even more, it is due to the Treasury's competing for funds with other long-term borrowers. By going to a shorter issue, the Treasury is now leaving the long-term field clear, which should bring substantially lower rates to the long-term market.

In fact, the demand for long-term credit is definitely slowing down. Underwriters report that the second-quarter calendar will be much lighter than the first-quarter offerings. But they hope that lower interest costs may bring more borrowers into the market. As one dealer put it, "There's been a bull market in the short-term sector. Now it looks as if we will have a bull market in long-term bonds."

There is no question about ease in the short-term sector. The 91-day Treasury bill rate this week was 1.14%, the lowest it has been in three years. In contrast, high-grade corporate bonds are selling at 4% or better. But with the Treasury out of the market, long-term rates should now come down.

Canadian Borrowers Flock Here For Lower U.S. Interest Rates . . .

Lower interest rates are luring Canadian borrowers across the border to the U.S. money market. Among those making the trip:

 Edmonton, Alta., with a \$20-million debenture issue—\$2-million for financing city improvements and bank loan repayments, the balance for utility extensions and general municipal purposes.

 Pacific Petroleums, Ltd., also of Alberta, with a \$30-million debenture issue—chiefly for repayment of bank loans.

 The Province of Ontario with a \$75-million issue to finance public improvements; and Montreal, which is expected to market \$35-million in debentures soon.

A number of other Canadian borrowings have already been concluded—among them, issues for Quebec Hydro-Electric Commission, Montreal Transportation Commission, British Columbia Power Commission, and a big private placement for Bell Telephone Co. of Canada.

Canadian borrowers say that the big spread between U.S. and Canadian rates is the chief reason for the upturn in flotations. The difference in interest costs is considered more than ample to compensate for any risk a Canadian company might face in paying a premium for U.S. dollars to meet its interest obligations or for eventual repayment of principal.

But underwriters also say that the Canadian money market would be hard pressed to find the funds for

these borrowings.

. . . Others Come Up From South

Bond issues from south of the border also keep hitting the money market. Puerto Rico this week borrowed \$18.3-million in public improvement bonds—at a 3.22% interest cost. Venezuela is planning a \$150-million issue to help pay off short-term debt incurred under the ousted regime of Gen. Marcos Perez Jimenez.

Big Board Tighten's Listing Rules To Promote "More Orderly" Market

On the ground that inflation had changed "the value of the dollar," the New York Stock Exchange this week tightened up its requirements on listing of stocks, both for new listings and for continuing outstanding listing.

For original listing, a company now must have:

• At least 400,000 shares outstanding, exclusive of family holdings, compared with 300,000 shares previously.

• A minimum market value on its outstanding com-

mon of \$8-million, instead of \$7-million.

To avoid delisting, a company must have not less than 250 stockholders, not counting odd lots. Suspension will also be considered if common shares outstanding total less than 30,000 shares, exclusive of family holdings, compared with the previous figure of 5,000 shares. A new criterion is also added under the new requirements: The total market value of common shares, exclusive of family holdings, must not fall below \$500,000.

According to stock brokers, the new requirements will promote a more orderly auction market, cutting down on thin trading in many stocks, regarded as a cause of

fluctuations.

The Markets Briefs

March went out like a shorn lamb as far as dividends were concerned, with more companies omitting payments than in any month in over 10 years. The March total of dividends cuts—34—was double the amount of a year ago. And April, say stock analysts, is unlikely to see a change in the trend.

Bonds called for redemption in March before maturity totaled only \$14.5-million, the smallest amount for any March since 1932. For the first quarter, prepayments of bonds totaled \$39.2-million, compared with \$85.7-million in the 1957 period.



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New-type concrete fits 1975 traffic needs. "Air entrainment"—puts bil-

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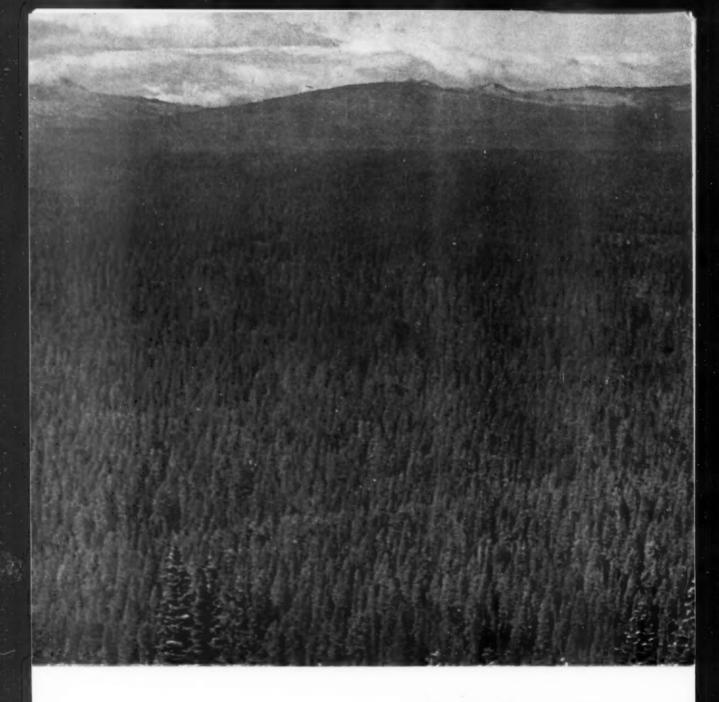
Expect these roads to last 50 years and more—with up to 60% lower up-keep costs than for asphalt! Moderate first cost isn't just a down payment!

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Photographs by Fritz Henle

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PERSONAL BUSINESS

BUSINESS WEEK APR. 5, 1958



Many executives who leave the office with a brief case crammed with homework may be overlooking a good tax deduction bet. If you have space set aside in your home for office purposes, you can deduct a proportion of household upkeep expenses, including depreciation on your house, maintenance, insurance, heat, and light.

In addition, you can deduct: (1) depreciation on home-office furniture and equipment; (2) part of the maid's pay, allocated to proper maintenance of your office space; (3) business telephone calls; and (4) cost of business literature used in your work at home.

To pin down these deductions, you must set aside space for business use, and be able to show that this space is an office-at-home—not simply your private library or den.

This means (in case the Internal Revenue Service questions your deductions) that the room should display simple evidence of home office use—suitable furniture, perhaps a separate telephone for business calls, maybe a filing cabinet, or dictaphone.

This is a matter of reasonableness—there's no fine rule. Nor do you have to show that you actually use the office a certain number of hours each week or month.

The formula to get the proper deductions is simple. First, take the depreciation item. The government has published tables giving the depreciation rate on your home—usually between $2\frac{1}{2}\%$ and 4% of cost each year—depending on type construction and other factors. You take the total depreciation (for the entire house, excluding land), then of this amount take as a deduction whatever part of the total represents the space used for your home office.

You can use the same space-formula to get other deductions.

Suppose you have a 10-room house that cost you \$80,000 (excluding land). Your home office takes one average room—one-tenth of the total space. Here you can reasonably deduct as business expense 10% of the annual depreciation, and 10% of your total non-personal household outlay.

For example, say the depreciation on your \$80,000 house is \$2,500 a year $(3\frac{1}{8}\%)$. Your figures might shape up this way: Depreciation allowed for office. $(1/10 \times \$2,500)$ or \$250 a year; total electric bill \$120 (allowed for office, \$12); heating \$400 (office \$40); maintenance and insurance \$500 (office \$50); wages of domestic for cleaning \$1,500 (office \$150); business telephone calls \$120; business literature \$50.

Thus your "home" business expense deduction for the year would be \$672—a clear dollar saving of \$336 for a man in the 50% bracket. These expenses are reported under "other deductions" page 2, Form 1040.

The deductions apply, of course, in the case of the semi-retired executive, working full-time or part-time at home. Here they may be even more valuable, in relation to income—where the executive has moved into a smaller house (with children married and away)—where the home office would take up a larger proportion of floor space.

Sports dealers around the country are perking up customers with an array of new streamlined gear for the 1958 season. Here are a few promising items—for fishing, hunting, golf, archery:

· A closed-face (American) spinning reel with push-button release for

PERSONAL BUSINESS (Continued)

BUSINESS WEEK APR. 5, 1958 casting provides continuous control of the lure—which can be stopped in mid-air or slowed with a slight touch. Reel takes 150 yd. of 6-lb. test line; by Zebco Co., Tulsa (\$13).

- An open-face (European) spinning reel, the Mitchell Fast Retrieve No. 350, has been introduced by Garcia Corp., New York (\$34). Reel's 30% higher gear ratio lets fisherman use spinning lures in shallow water without sinking or snagging; right and lefthanded models.
- For the novice hunter, maybe your teenage son, Winchester has an "automatic single shot" 22 rifle, combining the safety features of a single shot with automatic speed. Rifle is cocked for first shot only; the empty case is ejected through bottom, and recocking is automatic. When reloaded through loading chute on receiver, rifle is on safety. Takes short, long, and long rifle cartridges (Model 55, \$24).
- A new Fiberglas bow, the Conolon Missilite, for archery fans, has a bowaction that accelerates string's speed over length of travel, giving greater arrow velocity. Available in 25 to 75 lb. pulls at \$17 to \$58; by Narmco Conolon Co., Costa Mesa, Calif.
- A sturdy vest-pocket-sized camera, good on hunting and fishing trips, is the Japanese Mamiya 16. Camera has an F 3.5 lens, takes 20 exposures on 16-mm film; full range of shutter speeds, fast focusing from a foot to infinity. Easy to operate (\$39.95).
- Golfers may want to get the feel of a new style putter that features a resin-impregnated bamboo shaft. Comes in four head designs. Regular length is 35 in.; shorter or longer shafts can be ordered from Charles F. Orvis Co., Manchester, Vt. (\$22.50).

Tax refunds: About 50% of all returns filed involve refunds, says IRS. This year, the average refund will take about two months from the date of filing (not necessarily Apr. 15). Don't contact IRS before the end of your two-month period—it won't do any good, and you may slow the paperwork in your case. After two months, if you've had no check, write to your District Director.

IRS warns: Mistakes on returns may hold up the refund date.

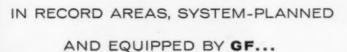
International flights:

With the introduction of the new "economy class" fares this week, there are now four types of plane tickets available. Here's a quick rundown on the fares and services for each type of service on a typical flight (round trip New York to London):

- De luxe: \$873—meals served course by course with choice of liquors and wines, stretch-out (sleeperette) seats with foot rests, extra attendants; 66-lb. baggage allowance.
- First class: \$783—full-course meals, not quite so elaborate a choice of alcoholic beverages; 66-lb. baggage.
- Tourist: \$567—complete meal on tray, liquors and wines sold; 44-lb.
 baggage allowance.
- Economy: \$453.60—cold sandwiches, tea, coffee, or milk, shorter (34-in.) seating; 44-lb. baggage.

Your champagne taste will cost you a little more this fall. Disappointing grape harvests in France will cause a price jump, maybe 10% to 15%.

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Super-Filer, with its exclusive swing front, not only speeds fact finding and filing, but also creates substantial savings in floor space by handling 18% more payload per drawer than rigid front files.

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ANTENNAS for Alaska's new communications system, dubbed White Alice, are ruggedly made to withstand ice loading, high winds.

136 Production

BUSINESS WEEK • Apr. 5, 1958

Alaska Gets an Outside Line

Tropo-scatter communications system gives the Territory its first reliable long-distance telephone network.

If you pick up your telephone now and ask for Nome, Alaska, you can get a quick connection that's just as clear as a call to a number in your local telephone exchange.

A few months ago, it wouldn't have been so easy. In fact, you might have had to make an appointment, wait several days until Nome's single channel radio-telephone line was clear. Then, your conversation might have been interrupted by fading and static.

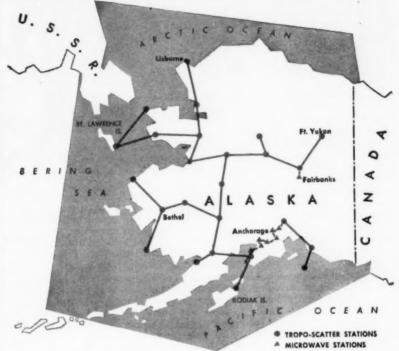
• Electronic Marvel—The change has been brought by an electronic system with the unlikely name of White Alice, whose 33 stations link Nome and some 30 or 40 other large and smaller Alaskan communities in a telephone network that can carry up to 132 simultaneous calls. The \$140-million network skips and jumps over 3,000 miles of rugged Alaskan territory (map). It went into operation at the end of March.

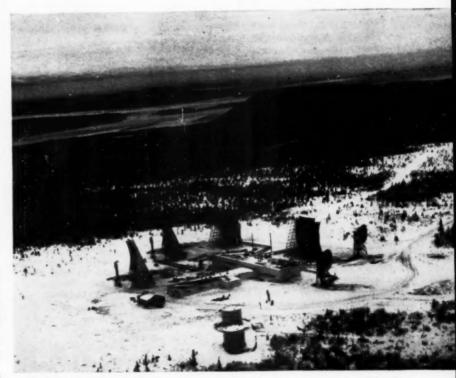
From New York, it took business week just three minutes to reach Steffan Andersen, mayor of Nome, a city of 2,000. Andersen claims that state-side calls are often clearer than calls on the local private telephone exchange, which boasts about 200 phones. "For long distance, there's no comparison," he said. "We used to have long waits and then end up shouting so loud that you'd think they could hear you from here to Anchorage without a phone."

• Defense Project—The White Alice system, using a technique that makes it possible to send ultra high frequency radio signals over the horizon, was built to connect early warning radar stations along the coast of Alaska with the U.S. Air Force continental defense system. The Alaskan Air Command is in charge of the completed network through its agency, the Integrated Communications System, Alaska. This agency handles communications for private business, Army and Navy installations, and the Civil Aeronautics Administration.

Work on the Alaska system began in 1954. The name White Alice was selected at random from the Air Force's list of code names. Western Electric Co. served as prime contractor, with Morrison-Knudsen handling most of the major construction work. All in all, 1,107 subcontractors were involved in the project.

 Special Problems—Difficult terrain and bad weather conditions ruled out the use of telephone line or cable for





TROPO-SCATTER STATION receives, amplifies, and relays radio signals. Though widely spaced, the stations blanket most of the Territory's rugged terrain (map above).

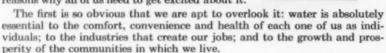
Rockwell Report

by W. F. ROCKWELL, JR.

President

Rockwell Manufacturing Company

IT IS VERY DIFFICULT to get people excited about water—until they turn the faucet and nothing happens. Yet there are two very important reasons why all of us need to get excited about it.



The second reason is not at all obvious to nearly enough people: water is increasingly harder to get, and not only in the so-called drought areas but all over the nation. Our population is growing at an almost unbelievable rate. And we Americans—with our water-using appliances, our fetish for cleanliness, and our giant industry—are using water at a greater rate than any other people in history, using it faster than nature can replace it—especially since we contaminate so much of it, making it unfit for re-use.

How to get people excited about water—excited enough to do something about it—is one of the main concerns of the American Water Works Association, meeting this month in its 78th annual convention in Dallas, Texas. Our company is also directly concerned—not only as makers of water measurement and control equipment, but also as manufacturers of many other things which could not be made without water.

The statistics of water use are startling, with deadly serious implications. At present we as a nation are using more than 290 billion gallons of water every day. With our record population growth and increasing per capita use of water, by 1975 it is estimated that 227,000,000 Americans will need 50% more water than is available today!

That additional water will *not* be available unless additional water facilities are provided in advance of need. And additional sewage treatment facilities, too, because proper treatment of wastes is vital to conserving our available supply of water for re-use.

Where adequate water and sewage facilities are not approved, communities will not grow either in size or strength or prosperity. People will not live where there is insufficient water for comfort and health—and industry cannot live without water.

The Water Journal, an external house organ our Municipal and Utility Division publishes for our customers in the water industry, produces many evidences of reader acceptance and good will—but nothing before has ever approached this: A copy has been sealed in the cornerstone of a church to be preserved for posterity. That particular issue carries a story on the community's water system, but also includes a great deal of local historical lore which apparently had never been assembled in one place before.

The use of water meters to cut needless water waste is, of course, only one of several approaches to the problem of bringing the supply of water in balance with present and future demand. But it is a practical approach that can be taken immediately, and that is being taken by more and more municipalities—as reflected in sales of our own meters and valves. Documented reports prove that communities have cut their water consumption in half (in effect, doubled their supply) simply by metering all services.

One of a series of informal reports on the operations and growth of the

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for its customers, suppliers, employees, stockholders and other friends



the Alaska network. Many of the small communities that had to be linked up have no ground transportation at all—they are clustered around small airstrips and military early warning radar installations, hacked out of the wilderness. Even line-of-sight microwave towers, which have to be spaced at less than 40-mi. intervals, wouldn't work in Alaska. There's no power available to run them, and self-powered stations would need monthly maintenance.

White Alice literally hurdles Alaska's geographical barriers in 200-mi. leaps. To do so, it uses one of the newest techniques in long-range communications—engineers call it "forward propagation tropospheric scatter." Ultra high frequency radio signals, beamed at the horizon, are scattered by vapor in the atmosphere and can be collected and amplified at great distance from the

transmission point.

· Potentialities-While White Alice is the largest tropospheric scatter system in operation so far, it's unlikely that it will hold that distinction long. That's because the tropo-scatter technique seems unbeatable for spanning long distances across remote or inaccessible terrain. Already, television signals are being beamed from the tip of Florida to Cuba by means of a single tropo-scatter link. Eventually, such links may connect the whole Caribbean, possibly extend as far as South America. And further in the future, transpolar television links between Europe and America may make possible live television between all nations.

But there is a great deal of technical work still to be done before these things are possible. White Alice, though it can carry over 100 telephone channels, does not have sufficient bandwidth for commercial television. General Electric is putting the finishing touches on a scatter system that it has built for the Air Force capable of sending a signal 700 miles, but it is very costly and will carry only 24 telephone channels.

White Alice in its present stage of development is quite an achievement, spanning distances more than 10 times as great as radio men thought possible

a decade ago.

 Accidental Discovery—The first hints that "tropo-scatter" would work came during World War II. Sometimes, radar targets theoretically out of range would show up on screens, signals from distant stations would be picked up suddenly for no apparent reason, and interference would develop between television stations half a continent apart.

Scientists at Bell Telephone Laboratories and Massachusetts Institute of Technology's Lincoln Labs went to work on the problem, and soon discovered that powerful ultra high frequency signals were scattered slightly by atmospheric gases. Using huge antennas that



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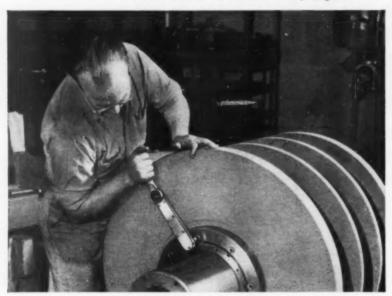
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BE SAFE...tighten grinding

wheel flange screws with torque wrench

... cautions Norton Product Safety Engineer



Where several wheels are mounted on the same spindle, a torque wrench is indispensable for tightening the flange screws uniformly, and just the right amount. Here a Norton worker uses a *Snap-on* Torqometer to do the job exactly right.

In a recent article, Ralph N. S. Merritt, Norton Company Product Safety Engineer, writes:

"About one-third of all grinding wheel breakages are caused either by worn or sprung flanges or other mounting equipment, or by faulty wheel mounting procedure. This situation indicates a lack of knowledge on the part of wheel users as to how the stresses in a rotating wheel are distributed, where the area of greatest stress lies, and just how much "wrench pull" to use in mounting sleeve-type wheels on cylindrical,

crankshaft and cam grinding machines.

"...a torque wrench offers the only positive control over the flange screw tension.

"...a torque of 15 ft-lb has been found to be a good limit for mounting large-hole, sleeve-mounted wheels.

"...if the American Standard Safety code regulations for mounting wheels, together with the recommendations outlined in this article** are observed, a great many grinding wheel accidents can be prevented."

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**Complete article available from Norton Company, Worcester 6, Mass.





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multiplied the signals several hundredfold, plus special low noise receivers and amplifiers, they found it possible to get reliable reception over long distances.

• Basic Idea—The principle behind the system is not hard to understand if you've ever driven a car at night. When you approach a hill, you can see the beams of an oncoming car's headlights reflected in the sky long before the car itself appears. Ultra high frequency radio signals behave in about the same way. A little of the signal is deflected and scattered and can be picked up with sensitive equipment.

For telephone and telegraph services, which need many channels of communication so that a large number of messages can be sent simultaneously, this type of over-the-horizon radio is much more useful than other types of long distance radio techniques. At low frequencies, it's much easier to get distance because the radio waves tend to hug the ground. This ground wave effect will carry a powerful signal all the way around the world. That phenomena is used in military navigation systems such as the Navy's Loran.

Slightly higher frequencies will bounce off the ionosphere (the so-called Heaviside layer) and will continue to bounce their way around the world. Such signals are subject to severe fading and often have blind spots.

But the big drawback to both low frequency and conventional short wave broadcasting is the limitation on frequency bandwidth.

• Open Spaces—The bandwidth is the amount of frequency variation permitted in the signal sent out, and corresponds to, say, the width of a highway in the amount of traffic, or information, it can carry at one time. To send all the information required for a television signal, for example, requires a bandwidth of 4.5-million cycles per second, or 4.5 megacycles. So in order to get room on the crowded radio frequency spectrum, it's necessary to go to the high end of the frequency range, broadcasting in the hundreds or even thousands of megacycles.

Line-of-sight microwave, over which many telephone circuits, radio circuits and television network signals are carried in the continental U.S., uses frequencies in the area of 4,000 megacycles. White Alice and other tropospheric scatter techniques work best in the 1,000-megacycle range. The scatter evidently is caused largely by water vapor in the atmosphere, as transmission is most difficult during the cold winter months when the air contains the least amount of water vapor.

• High Reliability-But even at the most unfavorable time of year, White Alice is capable of transmitting messages with the same reliability as the

Simple proof

Better electric motors can be built . . . when they are born of new ideas,







Perfect wedding of power and function is yours with any of the motors in A. O. Smith's application-engineered line. For example, rotor-stator kits like the one at left are already widely used as hermetic motors powering air-conditioning compressors. And they offer unlimited flexibility for installations in which the motor housing is an integral part of the basic machine.

Whatever the requirements - from 1/2 hp fractional to brawny 800 hp integral - you can always rely on A. O. Smith motors for quiet, efficient dependability, extra long-life performance that comes from perfect wedding of power and function.

ing that brings new ideas to a field long bound by the habits of tradition.

Among its exclusive developments are such advances as totally enclosed canopy housing that guards the vital starting switch from all foreign materials. While locking out everything that might endanger performance, the canopy is easily removable for service. Another feature, controlled "thru-ventilation," directs cooling air-flow over the coils but not over the bearings. Result: greater efficiency, far longer motor life.

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Cedar Falls, Iowa, U.S.A. In Canada, it's "ROTO-KING" pumps Offices and Distributors in Principal Cities See Your Classified Telephone Directory domestic Bell System. Its signals get through 99.75% of the time. Since errors in inter-dependent systems like White Alice are cumulative, each station on the network must be much more reliable than the system as a whole. Each station on the net, therefore, has to be operating 99.997% of the time. To get that kind of reliability, Western Electric used every trick in the engineer's book.

The operational reliability of the system is better than the 99.75% minimum despite the fact that a signal at the receiving antenna is only one 10-trillionth as strong as the signal sent out 200 miles away. Each leg of the network is served by four huge parabolic antennas that amplify both the transmitted and received signals hundreds of times, much as a telescope lens amplifies a beam of light.

• Special Apparatus—The powerful signals from the transmitters are carried in large tuned pipes, called waveguides, that are dimensionally accurate to within a thousandth of an inch. Big stacks of plumbing, called branching filters, tune out the power transmitting signals from the supersensitive receivers so that each antenna can transmit and receive 132 broad band high fidelity telephone circuits simultaneously.

The radio transmitters are specially built for the system, using high-powered klystron tubes for power. For the smaller stations, 1,000-watt klystrons spray their signals against 30-ft. antennas. For the longer leaps, 10,000-watt klystrons feed huge 60-ft. parabolic structures that look like outdoor movie screens. All outdoor equipment can withstand 16 in. of ice loading and winds up to 150 mph. The big 60-ft. antennas are heated with three big furnaces, each, to keep ice off the critical reflecting surfaces. During icing conditions, each furnace can turn out half a million Btu's.

• The Cost—A good part of the \$140-million cost of the White Alice network is due to the inaccessibility of most of the transmitter stations. To capitalize on the best signal conditions, many are located near the top of small mountains. To construct them, every bit of equipment had to be flown in to a nearby airstrip, and from there roads had to be constructed up the hill to the station site. The average cost of one of the tropospheric scatter stations is about \$3-million.

Tolls for private use of the new system will be about the same as regular Bell System long distance rates, even though the capital investment per telephone served in Alaska is probably the highest in the history of the Bell System. About 20,000 of Alaska's 30,000 phones will be hooked up with the outside world. The cost per phone is approximately \$70,000. END

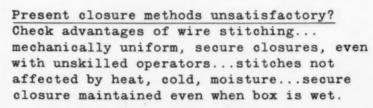


CLOSURE IDEA BULLETIN



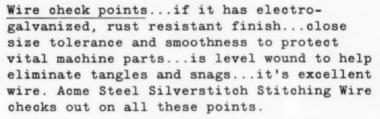
For users of Fibreboard Boxes

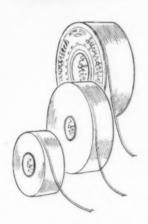






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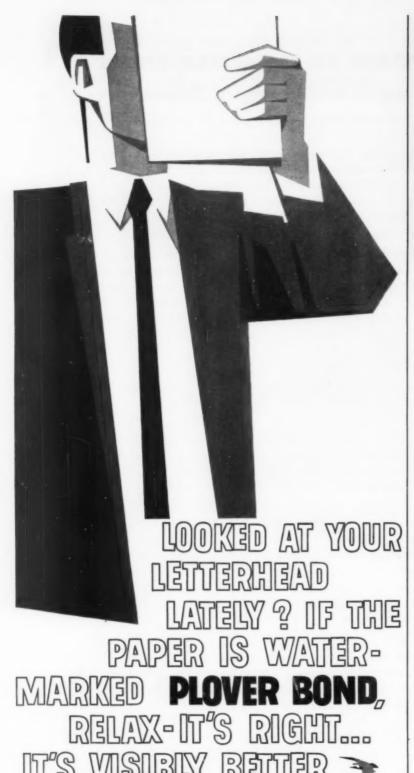


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144 Production



Quick Twister

U. S. Rubber unveils a cord former that readies nylon yarn for weaving into tires twice as fast, twice as efficiently.

The machine in the picture does the work of three in converting bulk packages of yarn into spindles of two-ply nylon cord, ready for weaving into tire fabric. It used to take one machine to wind the yarn onto small spindles, another to rewind it onto larger spindles, and a third to wind two of these yarns together into two-ply cord.

Instead of twisting the yarns together, the new machine more or less wraps one around the other. Thanks to special metering rolls, it also makes sure the finished tire cord consists of yarns of equal length—which improves the fabric's ability to bear a load.

Running at about 8,000 rpm., twice the speed of ordinary twisting devices, the new machine can produce about twice the work. In addition, it is expected to cut manpower needs more than 50%.

• \$500,000 Project—Developed for United States Rubber Co. in 10 years of work at a cost of \$500,000, the machine is called the Clarkson cord former, after its inventor—R. J. Clarkson, a textile engineer for U. S. Rubber. The first large-scale installation anticipated by the company will be in its Shelby-ville (Tenn.) plant sometime next year, where capacity of about 2.5-million lb. of tire cord yearly is planned from 1,120 spindles.

U. S. Rubber will license its patents on the machine to other producers. Estimated cost of manufacturing the machine is around \$325 to \$350 per spin-

dle. END

BUSINESS WEEK . Apr. 5, 1958

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TV Sets That Take Less Room

There were television innovations aplenty at the Institute of Radio Engineers' convention in New York last week, even though the TV industry thinks this is a slow year for big changes. Some of the new developments can:

 Make your TV set a few inches slimmer and more flexible in design (picture).

Bring flat-on-the-wall TV a step

closer to reality.

• Provide, for the first time, widescreen TV in closed-circuit use.

Permit transoceanic TV transmission and improve long-distance relays

The TV set in the picture owes its thinness to a new picture tube developed by Corning Glass Works. With a 21-in. screen, the set is only 10 in. deep, though the tube itself projects about 4 in. farther in back.

• Safety Factor-Most TV sets have a separate plastic or glass plate set in front of the picture tube, for protection against implosion—the bursting of the vacuum tube inward, which might sprinkle the viewer with glass dust if the plate weren't there.

This plate reduces the quality of the TV image by adding two extra reflecting surfaces—the front and back of the plate—that distort some of the light needed for a good image. Dust can filter behind the plate and dull the picture's brightness, too.

The Corning tube eliminates this problem by eliminating the need for the attached plate. Implosion protection is provided by curving an extra glass panel to fit directly to the front of the picture tube; it is sealed to the edges of the tube face with an epoxy resin, with a measured amount of mineral oil filling the space between the tube and the panel.

Light passes through this arrangement as though it were a single piece of glass. This is supposed to give the viewer increased brightness, improved detail, reduced glare, and wider-angle viewing, such as he might get by looking at a naked picture tube in a conventional set.

The new panel can be attached by the manufacturer of either the tube or the set. Corning says one maker will introduce it in his 1959 line.

• Mural TV-Television sets so thin they can hang on a wall like a picture are closer, too, thanks to developments in flat, solid screens that will do the work now done by the vacuum picture tube. But even the optimists say it will be five to ten years before mural TV is available.

Sylvania Electric Products, Inc., has taken the latest step forward in this area by successfully using electronics to create a picture on its Sylvatron solid screen (BW-Jul.13'57,p174). These systems avoid a tube to project electrons onto the screen; instead, a flow of electrons across the screen controls the picture. In previous solid screens, the electron flow was governed by a series of switches operated by commutator motors.

The vital step is still to come-building the electronic circuitry that controls the picture into the screen itself. However, Westinghouse Electric Corp. says it may be easier to take that step with its own new version of the solid screen. Called the ELF screen, it's less than ½ in. thick and reportedly shows images three times brighter than conventional screens.

 Broad View—There's a demand for wide-screen television among users such as the Navy, which would like to view a broader expanse of shoreline when

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observing an invasion, and department stores, which would like to scan a greater length of aisle when looking for shoplifters. They can get an image twice as wide as ordinary, but no higher, in a system developed by Grimson Color, Inc., New York researchers in electronics and optics.

The Grimson system uses Scanoscopes, an anamorphic lens like that used to make Cinemascope movies, to squeeze an image with an 8x3 width-to-height ratio down to conventional size (4x3), which a TV camera can handle. The image is then unsqueezed electronically in the monitor set.

This means that if a conventional TV camera and a Scanoscope camera are set side by side at a given distance away from four people standing abreast, the conventional monitor will show only two of them, while the Scanoscope monitor will show all four. The Grimson system is limited to closed-circuit applications for the present.

Scanoscope systems will sell from \$3,800 to about \$5,600, depending on the lens equipment; they are just going

on the market now.

• Narrow Band—Better and cheaper long-distance TV transmission may result from a development by Technicolor Corp. of Hollywood. Existing methods require a range of frequencies, or band width equivalent to 1,000 telephone circuits for one video channel, so long-distance transmissions are very expensive. Transoceanic TV transmission is impossible because no circuits of adequate band width are available.

One reason TV needs a wide channel is that the electronic signal representing each point of light in the image must constantly be repeated, even when there is no change in the light's

brightness.

Technicolor has come up with a system that eliminates this redundancy, so that there is a new signal only when the image changes. Technicolor's system also converts the complex video signal into a simpler electronic signal that takes up less room; in fact, this is what makes it possible to do away with redundancy. The system can reduce the band width needed by as much as 4 to 1.

The system feeds normal TV camera output into a small high-speed electronic computer for conversion to the simpler signal, which is then sent to the receiver. A similar computer at the receiver translates the signal back for presentation to a normal TV tube.

The Technicolor system must be refined for a complete tone scale; only two levels of brightness are now possible. When finished, it may enable TV signals to be sent on an ordinary telephone wire, instead of the expensive coaxial cable. END

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lem, you may like to know how other executives are defeating it. For there is a proved, positive way that you can progressively build superior management manpower, and actually create a reserve of moveahead, leadership talent. It works as simply as this:

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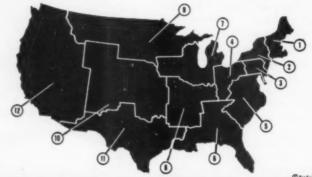
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CHARTS OF THE WEEK

The Income Pattern: Business Week's Regional Income Indexes

U. S. Incomes: Up 1.9% From Last Year



COUSINESS WEEK

Federal Reserve District	% Change vs. year ago	Jan. 1958	The Indexe Dec. 1957	Jan. 1957
1. Boston	+3.2%	291.0	293.3	282.0
2. New York	+ 2.8%	315.6	314.7	307.0
3. Philadelphia	+ 2.2%	302.2	303.3	295.6
4. Cleveland	+1.1%	349.5	350.4	345.7
5. Richmond	+ 2.9%	378.0	373.6	367.5
6. Atlanta	+0.8%	448.6	456.4	445.0
7. Chicago	+1.0%	358.9	361.2	355.4
8. St. Louis	+3.0%	334.8	331.2	324.9
9. Minneapolis	+3.9%	369.3	368.1	355.3
10. Kansas City	+5.6%	425.4	420.8	402.7
11. Dallas	+1.7%	502.8	498.2	494.4
12. San Francisco	-0.4%	397.8	397.3	399.4
Nation	+1.9%	360.3	360.3	353.5

1941 = 100; adjusted for seasonal, January figures preliminary; December revised.

Smallest Gain Since 1955

U.S. incomes in January, 1958, were a mere 1.9% higher than a year ago. according to BUSINESS WEEK'S Composite of Regional Income Indexes. That was the smallest year-to-year gain since January, 1955. Year-to-year changes for the regions ranged from +5.6% in Kansas City to -0.4% in San Francisco. It was the first such decline for any region since June, 1955, when incomes in the New York region fell below their year-ago level; and it was the first year-to-year drop for San Francisco since July, 1954. From December to January, California suffered the largest loss in manufacturing employment since 1949. Compared with year-ago January, manufacturing employment was down 73,000. More than half of the year-to-year loss was

concentrated in the aircraft industry. From December to January, incomes

for the nation were unchanged. Five among the 12 regions registered declines. They were Boston, Philadelphia, Cleveland, Atlanta, and Chicago.

For 1957, incomes averaged 5.0% higher than in 1956—slightly less than the gain shown in the preceding two years. In 1956, the gain was 6.1%, and in 1955 it was 5.4%. U.S. incomes in 1954 fell 1.6%.

Compared with the all-time highs reached in 1957, incomes are off most sharply in the Atlanta and Dallas districts. The declines are 6.4% and 5.9%. Elsewhere, incomes dropped 3.0% or less. Smallest losses are 0.7% in the Minneapolis region and 0.8% in Boston.

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Propaganda Is No Answer

Moscow has given the U.S. a propaganda licking by announcing a halt in Soviet H-bomb tests. Secy. of State Dulles was frank to admit this fact at his Tuesday press conference.

It makes no sense, though, to treat this latest Soviet stratagem as a tragic defeat for the West—or to think that all we have to do is beat the Kremlin at its own game. So long as the Russians are under the control of unscrupulous and power-hungry adventurers, there is no possibility that a democratic nation like ours can match each Soviet propaganda move with one of its own.

This does not mean that we should fold our hands in the face of Soviet propaganda. On the test ban issue, there should be some way to put this problem into the hands of the United Nations (page 32). For example, we might ask the U. N. to register and observe our tests until such time as the Kremlin agrees to observe a U. N. formula for an inspected test ban. But even such a move on our part would not offset the propaganda advantage the Communists already have won.

On the H-bomb issue, we might as well face the fact that today, and probably for some time, we are bound to suffer a propaganda handicap. There is a very simple reason for this, and one that is accepted by the governments of our chief NATO partners. As a peaceful nation, with no ambition to spread our rule over the world, we are bound to remain on the defensive militarily. Since we are inhibited from striking the first blow, our defenses (retaliatory power and continental defense system) must be as foolproof as money and science can make them. Barring a complete change in Soviet attitude, the security of the West urgently requires the further testing of nuclear warheads for missiles and the beginning of tests for an anti-missile missile.

The Soviets are under no such compulsion today. They have just completed a test series on nuclear warheads that undoubtedly has given them enough offensive potential to guarantee them against any political pressure the U.S. might conceivably exert against the Soviet bloc. Therefore, they can afford to challenge us to a test ban and expect to reap large political rewards from posing as peacemakers.

If this is the situation, propaganda gimmicks won't provide the answer. What's needed is a new and frank declaration of American policy—one that will cut through the wishful thinking that has become so widespread, in Britain and Western Europe as well as Asia, with respect both to the H-bomb and a summit meeting. Such a declaration might well explain why the West's security depends on maintaining our nuclear strength.

To back up such a statement we must then push ahead with rocket development, match the achieve-

ments of the Russians with their Sputniks and renew the free world's faith in our nuclear-missile capabilities.

This does not leave much room for optimism about the results of a summit meeting. And why should there be, in view of the manifest purpose of the Soviets to do a snow job on us there? For our money, Secy. of State Dulles is absolutely right to block every Soviet effort to turn the summit meeting into a Communist propaganda show.

If Moscow refuses the kind of summit preparations that the West must have to guard against this, the meeting had better be forgotten. Or if Moscow, despite the preparations, refuses at the summit to make any arms control agreement or any political settlements, it would be better to have the conference break up in failure than for us to acquiesce in a coverup communique that gave the impression that some accommodation had been reached. In neither case would the danger of war be heightened. That danger is likely to grow only if the U.S. backs down under Soviet pressure, or under the pressure of the wishful thinkers in the West.

Canada's New Look

The Conservative party of Canada's Prime Minister John Diefenbaker has won a landslide victory in this week's general election. It not only won a firm majority over the Liberals but almost wiped out the two minor parties—the Cooperative Commonwealth Federation and the Social Credit Movement—which in effect restores the two-party system to Canada.

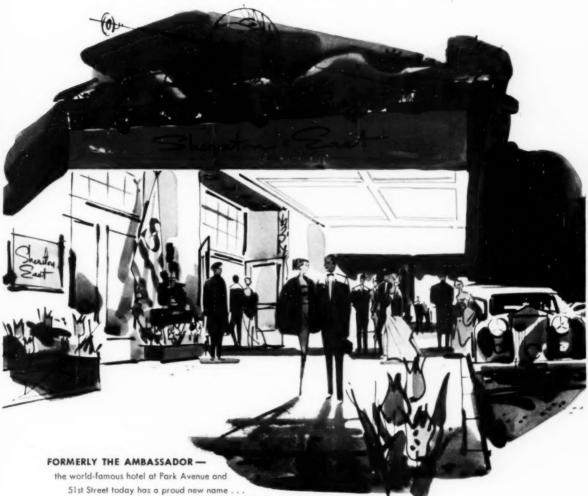
U. S. experience, particularly since 1954, illustrates the difficulty that faces a government when the executive is in the hands of one party and the legislature in the other. In winning a clear majority, Diefenbaker and the Conservatives can proceed with carrying out their program, designed to stimulate Canada's recovery from its recession, with the comforting knowledge that it possesses the backing of the nation.

Considering that the Conservatives were first voted into office before the Canadian recession took hold, Canada's voters deserve credit for not blaming it for the downturn. But now, having full control, it will be judged more critically.

We wish Diefenbaker well. At the same time, we hope that the statements made in the heat of the campaign, accusing the U.S. of trying to gain financial control of Canada, were simply oratorical and not real expressions of policy. We are used to demagogic expressions in our own political campaigns, but now that the election is over, we hope that Diefenbaker will take a much more statesmanlike approach to his responsibilities.

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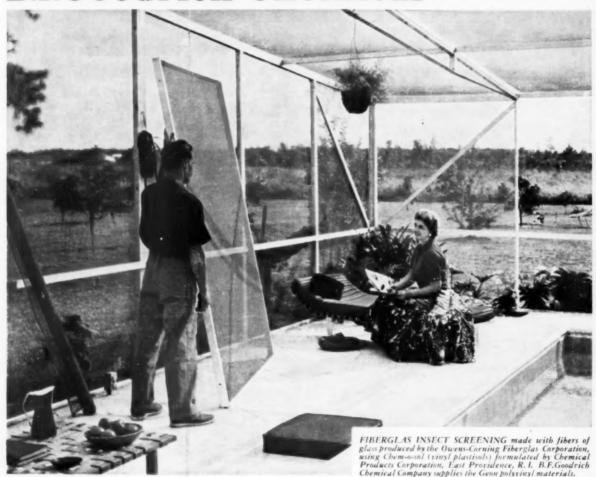
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